



Sequence Listing

<110> FREDERIC J. DESAUVAGE
GRETCHEN FRANTZ
KENNETH J. HILLAN
PAUL POLAKIS
ANDREW POLSON
VICTORIA SMITH
SUSAN D. SPENCER
THOMAS D. WU
ZEMIN ZHANG

<120> COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
TREATMENT OF TUMOR

<130> P5026R1-US

<140> US 10/643,795

<141> 2003-08-19

<150> US 60/404,809

<151> 2002-08-19

<150> US 60/405,645

<151> 2002-08-21

<150> US 60/413,192

<151> 2002-09-23

<150> US 60/419,008

<151> 2002-10-15

<150> US 60/426,847

<151> 2002-11-15

<150> US 60/484,959

<151> 2003-07-02

<160> 158

<210> 1

<211> 1870

<212> DNA

<213> Homo sapien

<400> 1

gttactgcac cccaaaacag gtctggccac ggccatgagc atgctgagcc 50

atcatgccca ccgtggatga cattctggag cagggttgggg agtctggctg 100

gttcagaag caagccttcc tcattctatg cctgctgtcg gctgcctttg 150

cgcccatctg tgtgggcac gtcttctctg gtttcacacc tgaccaccac 200

tgccagagtc ctgggggtggc tgagctgagc cagcgctgtg gctggagccc 250
 tgccgaggag ctgaactata cagtgccagg cctggggccc gcgggcgagg 300
 ctttccttgg ccagtgcagg cgctatgaag tggactggaa ccagagcgcc 350
 ctgagctgtg tagaccccct ggctagcctg gccaccaaca ggagccacct 400
 gccgctgggt ccctgccagg atggctgggt gtatgacacg cccggtctt 450
 ccatcgtcac tgagttcaac ctggtgtgtg ctgactcctg gaagctggac 500
 ctctttcagt cctgtttgaa tgcgggcttc ttgtttggct ctctcggtgt 550
 tggctacttt gcagacaggt ttggccgtaa gctgtgtctc ctgggaactg 600
 tgctgggtcaa cgcggtgtcg ggcgtgctca tggccttctc gcccaactac 650
 atgtccatgc tgctcttccg cctgctgcag ggcctggta gcaagggcaa 700
 ctggatggct ggctacaccc taatcacaga atttgttggc tcgggctcca 750
 gaagaacggt ggcgatcatg taccagatgg ccttcacggt ggggctggtg 800
 gcgcttaccg ggctggccta cgcctgcct cactggcgct ggctgcagct 850
 ggcagtctcc ctgcccacct tcctcttct gctctactac tgggtgtgtg 900
 cggagtcccc tcggtggctg ttatcacaaa aaagaaacac tgaagcaata 950
 aagataatgg accacatcgc tcaaaagaat gggaagttgc ctctgctga 1000
 tttaaagatg ctttccctcg aagaggatgt caccgaaaag ctgagccctt 1050
 catttgaga cctgttccgc acgcgcgcgc tgaggaagcg caccttcac 1100
 ctgatgtacc tgtggttcac ggactctgtg ctctatcagg ggctcatcct 1150
 gcacatgggc gccaccagcg ggaacctcta cctggatttc ctttactcgc 1200
 ctctggtcga aatccccggg gccttcatag cctcatcac cattgacgc 1250
 gtgggcccga tctaccccat ggccatgtca aatttgttgg cgggggcagc 1300
 ctgcctcgtc atgattttta tctacactga cctgcactgg ttaaacaatca 1350
 taatcatgtg tgttgccga atgggaatca ccattgcaat acaaatgac 1400
 tgctggtga atgctgagct gtacccaca ttcgtcagga acctcgagct 1450
 gatggtgtgt tcctccctgt gtgacatagg tgggataatc acccccttca 1500
 tagtcttcag gctgaggag gtctggcaag ccttgccct cattttgttt 1550
 gcggtgttgg gcctgcttc cgcgggagtg acgctacttc ttccagagac 1600
 caagggggtc gctttgccag agaccatgaa ggacgccgag aaccttggga 1650

gaaaagcaaa gcccaaagaa aacacgattt accttaaggt ccaaacctca 1700
gaacctcgg gcacctgaga gagatgtttt gcggcgatgt cgtgttgag 1750
ggatgaagat ggagttatcc tctgcagaaa ttcttagacg cttcacttc 1800
tctgtattct tctcatact tgcctacccc caaattaata tcagtcctaa 1850
agaaaaaaaa aaaaaaaaaa 1870

<210> 2

<211> 731

<212> DNA

<213> Homo sapien

<220>

<221> Unsure

<222> 570, 575, 607, 611, 642, 672, 678

<223> Unknown base

<400> 2

aattagcata acccttcctc aggaagagt agattttata tttgacaata 50
aagtgttaga ctccatttct aaataccaga cttcaaaaga taagggtcaa 100
aagtgttata agaagatatt cctttttttg tcttagagaa cttattttcc 150
tgtgaaaatg cctaccacaa agaagacatt gatgttctta tcaagctttt 200
tcaccagcct tgggtccttc attgtaattt tgctctattc ttgggacaca 250
agcatggatc accagtacaa ttgctgttag agactctgct tcaaatggga 300
gcattttcat cacttacgga ctttttcgtg gggagagtag tgaagaattg 350
agtcacggac ttgcagaacc aaagaaaaag tttgcagttt tagagatact 400
gaataattct tcccaaaaaa ctctgcattc ggtgactatc ctgttcctgg 450
tcttgagttt gatcacgtcg ctgctgagct ctgggtttac cttctacaaa 500
cagcatcagc aacccttacc agacattcct ggggcccgcg gggggtgtac 550
acctgggaac gggcttcggn gcatncttcg tttttggtga ccatgatact 600
ggtttgnggg naacacgcag gtcccacca actcttcga anaagttgtt 650
tccaaaatgc tttacccccg gnaaccancc agtaaaggaa cgaccccaca 700
ggtagcgat actcgtgctg gctcatactg g 731

<210> 3

<211> 2974

<212> DNA

<213> Homo sapien

<400> 3

gatcagtgtg tgagggaact gccatcatga ggtctgacaa gtcagctttg 50

gtattttctgc tctctgcagct cttctgtgtt ggctgtggat tctgtgggaa 100
 agtcctgggtg tggccctgtg acatgagcca ttggcttaat gtcaagggtca 150
 ttctagaaga gctcatagtg agaggccatg aggtaacagt attgactcac 200
 tcaaagcctt cgttaattga ctacaggaag ccttctgcat tgaaatttga 250
 ggtggtccat atgccacagg acagaacaga agaaaatgaa atatttggtg 300
 acctagctct gaatgtcttg ccaggcttat caacctggca atcagttata 350
 aaattaaatg atttttttgt tgaaataaga ggaactttaa aaatgatgtg 400
 tgagagcttt atctacaatc agacgcttat gaagaagcta caggaaacca 450
 actacgatgt aatgcttata gaccctgtga ttccctgtgg agacctgatg 500
 gctgagttgc ttgcagtccc ttttgtgctc acacttagaa tttctgtagg 550
 aggcaatatg gagcgaagct gtgggaaaact tccagctcca ctttctatg 600
 tacctgtgcc tatgacagga ctaacagaca gaatgacctt tctggaaaga 650
 gtaaaaaatt caatgctttc agttttgttc cacttctgga ttcaggatta 700
 cgactatcat ttttggaag agttttatag taaggcatta ggaaggccca 750
 ctacattatg tgagactgtg ggaaaagctg agatatggct aatacgaaca 800
 tattgggatt ttgaatttcc tcaaccatac caacctaaact ttgagtttgt 850
 tggaggattg cactgtaaac ctgccaaagc tttgcctaag gaaatggaaa 900
 attttgtcca gagttcaggg gaagatggta ttgtggtgtt ttctctgggg 950
 tcaactgttcc aaaatgttac agaagaaaag gctaatatca ttgcttcagc 1000
 ccttgcccag atcccacaga aggtgttatg gaggtacaaa ggaaaaaac 1050
 catccacatt aggagccaat actcggtgt atgattggat accccagaat 1100
 gatcttcttg gtcatcccaa aaccaaagct tttatcactc atggtggaat 1150
 gaatgggac tatgaagcta tttaccatgg ggtccctatg gtgggagttc 1200
 ccatatttgg tgatcagctt gataacatag ctacatgaa ggccaaagga 1250
 gcagctgtag aaataaactt caaaactatg acaagcgaag atttactgag 1300
 ggctttgaga acagtcatta ccgattcttc ttataaagag aatgctatga 1350
 gattatcaag aattcaccat gatcaacctg taaagcccct agatcgagca 1400
 gtcttctgga tcgagtttgt catgcgccac aaaggagcca agcacctgcg 1450
 atcagctgcc catgacctca cctgggtcca gcactactct atagatgtga 1500

ttgggttcct gctgacctgt gtggcaactg ctatattcctt gttcacaaaa 1550
 tgttttttat tttcctgtca aaaatttaaat aaaactagaa agatagaaaa 1600
 gagggaatag atctttccaa attcaagaaa gacctgatgg ggtaatcctg 1650
 ttaattccag ccacatagaa tttggtgaaa accttgctat tttcatatta 1700
 tctattctgt tattttatct tagctatata gcctagaatt ccatgatcat 1750
 gaggttgtga gtatatctca ttctttcggt gtattttcct aggtgtcttt 1800
 actctcttct ctcactttgt gacacaagga catgaataca tctaaatttt 1850
 cctatttctg atatgactgt tttgatgatg tcattacttc tataacctta 1900
 agtgataggg tgacatgcaa tatgattatt cctgggtgtgc gcccaaacac 1950
 atggatataa agaggtaaaa aacttaaaat tcacaaaatt cagtaaacca 2000
 cacaaatcag gtaagtgttc tatgagatta gctggctatg agaaacataa 2050
 tgatgtttct ttttcaattt aaataagcct ttctacatag ccagcatcag 2100
 tgatctcaga aaataaattg ctaataatga tgacatggca ttatgcttag 2150
 aaaagtttgc tgtatttcca tagacctcat ctagatgtca tggcctacat 2200
 ttctgccatc actcaaccaa tacttttttc tgttttcttg atgataaaaa 2250
 gacctttctc atgattgcca tcaaataaca aaagaaacta ttttttttct 2300
 cacatagaga acatgtcagt aagatattca aggtgaacag atatttttgg 2350
 gattagtaac tatttgaaat atgtggtgat aattactgag tttataaaat 2400
 ttatttgata gtacacttaa agaagattta tatgtttatt ctttaaaaaat 2450
 gatgaatact cataattctt atctctataa tcaaaagtat aatttactgt 2500
 agaaaaataa agagatgctt gttctgaaag taagatcagt gaactgcttt 2550
 tcagtctcaa tctttgagaa ttgtaaattc atcaaataat tgcttacata 2600
 gtaaaaattt aaggatttag aaaacctgca taacaaatag tattatatat 2650
 taaatatttt gatatgtaa gctctacaca aagctaaata tagtgtaata 2700
 atgtttadac tagtaagcaa atatgttaat cttctcattt ttttactgtc 2750
 atataatctt agtgatatgc ctattaatag ttttaaataa ataaattggc 2800
 ttatctggct ttttgaaaat tttgaaattc ttacagatgt tgattaggta 2850
 tatctacaaa ttaatttcaa ttttaaaatg atgatataaa aataaatata 2900
 agtatttttc ttgtgtatgt atacaataaa tataaataaa attgtttact 2950

gttttgaaag tttcttaagt tttta 2974

<210> 4

<211> 2459

<212> DNA

<213> Homo sapien

<400> 4

gaggatgctg ctggggaaga tgtgcgcgcc gaggtacccg tccgggggcg 50
cctgggaccc tcacccaggc caggcttcgg ggagagcatg tatctgctct 100
cggacaaggc cacctcgccg ctctcgctgg atgctggcct cgggcaggcc 150
ccctggagcg acctgcttct ttgggcactg ttgctgaaca gggcacagat 200
ggccatgtac ttctgggaga tgggttccaa tgcagtttcc tcagctcttg 250
gggcctgttt gctgctccgg gtgatggcac gcctggagcc tgacgctgag 300
gaggcagcac ggaggaaaga cctggcgctt aagtttgagg ggatgggcgt 350
tgacctcttt ggcagtgct atcgagcag tgaggtgagg gctgcccgcc 400
tcctcctcgg tcgctgcccg ctctgggggg gatgccactt gcctccagct 450
ggccatgcaa gctgacgccc gtgccttctt tgcccaggat ggggtacagt 500
ctctgctgac acagaagtgg tggggagata tggccagcac tacacccatc 550
tgggacctgg ttctcgctt cttttgcctt ccaactcatc acaccgcct 600
catcaccttc aggaaatcag aagaggagcc cacacgggag gagctagagt 650
ttgacatgga tagtgtcatt aatggggaag ggctgtcgg gacggcggac 700
ccagccgaga agacgcgcgt ggggggtccc cgccagtcgg gccgtccggg 750
ttgctgcggg ggccgctgcg gggggcgccg gtgcctacgc cgctggttcc 800
acttctgggg cgcgcgggtg accatcttca tgggcaacgt ggtcagctac 850
ctgctgttcc tgctgctttt ctgcgggtg ctgctcgtgg atttccagcc 900
ggcgcgcgcc ggcctcctgg agctgctgct ctatttctgg gctttcacgc 950
tgctgtgcca ggaactgcgc cagggcctga gcggaggcgg gggcagcctc 1000
gccagcgggg gccccggggc tggccatgcc tcaactgagcc agcgcctgcg 1050
cctctacctc gccgacagct ggaaccagtg cgacctagt gctctcacct 1100
gcttctcctt gggcgtgggc tgccggctga ccccggttt gtaccacctg 1150
ggccgcactg tcctctgcat cgacttcatg gttttcacgg tgcggctgct 1200
tcacatcttc acggtcaaca aacagctggg gcccaagatc gtcacgtga 1250

gcaagatgat gaaggacgtg ttctttcttcc tctttcttccct cggcgtgtgg 1300
ctggtagcct atggcgtggc cacggagggg ctcttgaggc cacgggacag 1350
tgacttccca agtatcctgc gccgcgtctt ctaccgtccc tacctgcaga 1400
tcttcggggca gattccccag gaggacatgg acgtggccct catggagcac 1450
agcaactgct cgtcggagcc cggtttctgg gcacaccctc ctggggccca 1500
ggcgggcacc tgcgtctccc agtatgccaa ctggctgggtg gtgctgctcc 1550
tcgtcatctt cctgctcgtg gccaacatcc tgctgggtcaa cttgctcatt 1600
gccatgttca gttacacatt cggcaaagta cagggcaaca gcgatctcta 1650
ctggaaggcg caggttaccg cctcatccgg gaattccact ctcgccccgc 1700
gctggccccg ccttttatcg tcattctcca cttgcgcctc ctgctcaggc 1750
aattgtgcag gcgacccccg agccccagc cgtcctcccc ggccctcgag 1800
catttcgggg ttacctttc taaggaagcc gagcgggaagt gctaacgtgg 1850
gaatcgggtgc ataaggagaa ctttctgctg gcacgcgcta gggacaagcg 1900
ggagagcgac tccgagcgtc tgaagcgcac gtcccagaag gtggacttgg 1950
cactgaaaca gctgggacac atccgcgagt acgaacagcg cctgaaagtg 2000
ctggagcggg aggtccagca gtgtagccgc gtcttggggg ggggtggccga 2050
ggccctgagc cgctctgcct tgctgcccc aggtggggcg ccacccctg 2100
acctgcctgg gtccaaagac tgagccctgc tggcggactt caaggagaag 2150
ccccacagg ggattttgct cctagagtaa ggctcatctg ggccctcgcc 2200
ccgcacctg gtggccttgt ccttgaggtg agccccatgt ccattctggg 2250
cactgtcagg accacctttg ggagtgtcat ccttaciaaac cacagcatgc 2300
ccggctcctc ccagaaccag tcccagcctg ggaggatcaa ggccctggatc 2350
ccgggcccgtt atccatctgg aggtgcagg gtccctgggg taacagggac 2400
cacagacccc tcaccactca cagattcctc acactgggga aataaagcca 2450
tttcagagg 2459

<210> 5
<211> 1450
<212> DNA
<213> Homo sapien

<220>
<221> Unsure
<222> 2

<223> Unknown base

<400> 5

```
tntccgcaga accaggaaaag taacggctac agacagtgag aaatagtttc 50
gctcgccggc tagaaaaact ctgtcggtac caaccccaga gcgttgagag 100
cagcccacct ccacgcttcc ttaacggaga ggtgcaggac tcagacttca 150
ccagcccact cgggtcccagc cttgtacgca aagagacgcc aaggacgcgc 200
tctcccgcgt ccaggcagcc ccagcttgct ggcttgccctg cccgcctgcg 250
tgcagcactc ggccggcggtg cagcatgacc ctgtggaacg gcgtactgcc 300
tttttaccct cagccccggc atgccgcagg cttcagcggt ccactgctca 350
tcgttattct agtggttttg gctctagcag caagcttctt gctcatcttg 400
ccggggatcc gtggccactc gcgctgggtt tgggtgggtga gagttcttct 450
cagtctgttc ataggcgag aaattgtggc tgtgcacttc agtgcagaat 500
ggttcgtggg tacagtgaac accaacacat cctacaaagc cttcagcgca 550
gcgcgcgtta cagcccggtg cggctctgtc gtgggcctgg agggcattaa 600
tattacactc acagggaccc cagtgcacga gctgaacgag accattgact 650
acaacgagca gtacacctgg cgtctgaaag agaattacgc cgcggagtac 700
gcgaacgcac tggagaaggg gctgccggac ccagtgtctt acctggcggg 750
gaagttcaca ccgagtagcc cttgcggcct gtaccaccag taccacctgg 800
cgggacacta cgcctcggcc acgctatggg tggcggtctg cttctggctc 850
ctctccaacg tgctgtcttc cagcgcggcc ccgctctacg gaggcctggc 900
actgctgacc accggagcct tcgcgtctt cggggctctc gccttggcct 950
ccatctctag cgtgccgctc tgcccgtcc gcctaggctc ctccgcgctc 1000
accactcagt acggcgccgc cttctgggtc acgctggcaa ccggcgctct 1050
gtgcctcttc ctcgaggagg ccgtggtgag tctccagtat gttcggccca 1100
gcgctcttcg cacccttctg gaccaaagcg ccaaggactg cagccaggag 1150
agagggggct cacctcttat cctcggcgac cactgcaca agcaggccgc 1200
tctccagac ttaaaatgta tcaccactaa cctgtgaggg ggacccaatc 1250
tggactcctt cccgccttg ggacatcgca ggccgggaag cagtgcgcgc 1300
caggcctggg ccaggagagc tccaggaagg gcactgagcg ctgctggcgc 1350
gaggcctcgg acatccgcag gcaccagggg aagtctctg gggcgatctg 1400
```

taaataaacc tttttttctt ttgtttttta aaaaaaata aaagtcgacc 1450

<210> 6

<211> 2877

<212> DNA

<213> Homo sapien

<400> 6

ctgcaggctt caggagggga cacaagcatg gagcggcttt ggggtctatt 50
ccagagagcg caacaactgt cccaagatc ctctcagacc gtctaccagc 100
gtgtggaagg cccccggaaa gggcacctgg aggaggaaga ggaagacggg 150
gaggaggggg cggagacatt ggcccacttc tgcccatgg agctgagggg 200
ccctgagccc ctgggctcta gaccagga gccaaacctc attccctggg 250
cggcagcagg acggaggggt gcccctacc tggctctgac ggcctgctg 300
atcttcactg gggccttctt actgggttac gtcgcttcc gagggctctg 350
ccaggcgtgc ggagactctg tgttggtggt cagtgaggat gtcaactatg 400
agcctgacct ggatttccac cagggcagac tctactggag cgacctccag 450
gccatgttcc tgcagttctt gggggagggg cgcttgagg acaccatcag 500
gcaaaccagc cttcgggaac ggggtggcagg ctcgccggg atggccgctc 550
tgactcagga cattcgcgcg gcgctctccc gccagaagct ggaccacgtg 600
tggaccgaca cgcactacgt ggggctgcaa tccccggatc cggtcacccc 650
caacacctg cactgggtcg atgaggccgg gaaggtcgga gagcagctgc 700
cgctggagga ccctgacgtc tactgcccct acagcgccat cggcaacgtc 750
acgggagagc tgggtgtacg ccactacggg cggcccgaag acctgcagga 800
cctgcggggc aggggcgtgg atccagtggg ccgctgctg ctggtgcgcg 850
tgggggtgat cagcttcgcc cagaaggtga ccaatgctca ggacttcggg 900
gctcaaggag tgctcatata ccagagcca gcggacttct ccaggaccc 950
acccaagcca agcctgtcca gccagcaggc agtgtatgga catgtgcacc 1000
tgggaactgg agaccctac acacctggct tcccttcctt caatcaaacc 1050
cagttccctc cagttgcac atcaggcctt ccagcatcc cagcccagcc 1100
catcagtgca gacattgcct cccgctgct gaggaagctc aaaggccctg 1150
tggcccccca agaatggcag gggagcctcc taggctcccc ttatcacctg 1200
ggccccgggc cagcactgcg gctagtggtc aacaatcaca ggacctccac 1250

ccccatcaac aacatcttcg gctgcatcga aggccgctca gagccagatc 1300
actacgttgt catcggggcc cagaggggatg catggggccc aggagcagct 1350
aaatccgctg tggggacggc tatactcctg gagctggtgc ggaccttttc 1400
ctccatggtg agcaacggct tccggccccg cagaagtctc ctcttcatca 1450
gctgggacgg tggtgacttt ggaagcgtgg gctccacgga gtggctagaa 1500
ggctacctca gcgtgctgca cctcaaagcc gtagtgtacg tgagcctgga 1550
caacgcagtg ctgggggatg acaagtttca tgccaagacc agcccccttc 1600
tgacaagtct cattgagagt gtctgaagc aggtggattc tccaaccac 1650
agtgggcaga ctctctatga acaggtggtg ttcaccaatc ccagctggga 1700
tgctgaggtg atccggcccc taccatgga cagcagtgc tattccttca 1750
cggcctttgt gggagtccct gccgtcagat tctcctttat ggaggacgac 1800
caggcctacc cattcctgca cacaaggag gacacttatg agaacctgca 1850
taaggtgctg caaggccgcc tgcccgccgt gggccaggcc gtggcccagc 1900
tcgcaggga gctcctcatc cggctcagcc acgatcgct gctgcccctc 1950
gacttcggcc gctacgggga cgtcgtcctc aggcacatcg ggaacctcaa 2000
cgagttctct ggggacctca aggcccgcg gctgacctg cagtgggtgt 2050
actcggcgcg gggggactac atccggcgcg cggaaaagct gcggcaggag 2100
atctacagct cggaggagag agacgagcga ctgacacgca tgtacaacgt 2150
gcgcataatg cgggtggagt tctacttctt tcccagtag gtgtcgccag 2200
ccgactcccc gtccgccac atcttcatgg gccgtggaga ccacacgctg 2250
ggcgccctgc tggaccacct gcggctgctg cgtccaaca gctccgggac 2300
ccccggggcc acctcctcca ctggcttcca ggagagccgt ttcggcgctc 2350
agctagccct gctcacctgg acgtgcaag gggcagccaa tgcgcttagc 2400
ggggatgtct ggaacattga taacaacttc tgaggccctg gggatcctca 2450
catccccgtc cccagtcaa gagtcctct gctcctcgct tgaatgattc 2500
agggtcaggg aggtggctca ggtccacct ctcatgtg atcaatttct 2550
cattaccctt acacatctct ccacggagcc cagaccccag cacagatatc 2600
cacacacccc agccctgcag ttagctgac cctaattgta cggtcatact 2650
gtcggttaat cagagagtag catcccttca atcacagccc cttccccctt 2700

ctggggctcct ccatacctag agaccactct gggaggtttg ctaggccctg 2750
 ggacctggcc agctctgtta gtgggagaga tcgctggcac catagcctta 2800
 tggccaacag gtggtctgtg gtgaaagggg cgtggagttt caatatcaat 2850
 aaaccacctg atatcaataa gccaaaa 2877

<210> 7

<211> 1926

<212> DNA

<213> Homo sapien

<400> 7

gctggagcat cccgctctgg tgccgctgca gccggcagag atggttgagc 50
 tcatgttccc gctgttgctc ctcttctgc ccttcttct gtatatggct 100
 gcgccccaaa tcaggaaaat gctgtccagt ggggtgtgta catcaactgt 150
 tcagcttcct gggaaagtag ttgtggtcac aggagctaata acaggtatcg 200
 ggaaggagac agccaaagag ctggctcaga gaggagctcg agtatattta 250
 gcttgccggg atgtggaaaa gggggaattg gtggccaaag agatccagac 300
 cacgacaggg aaccagcagg tggttggtgcg gaaactggac ctgtctgata 350
 ctaagtctat tcgagctttt gctaagggct tcttagctga ggaaaagcac 400
 ctccacgttt tgatcaacaa tgcaggagtg atgatgtgtc cgtactcgaa 450
 gacagcagat ggctttgaga tgcacatagg agtcaaccac ttgggtcact 500
 tctctctaac ccattctgtg ctagagaaac taaaggaatc agcccatca 550
 aggatagtaa atgtgtcttc cctcgccat cacctgggaa ggatccactt 600
 ccataacctg cagggcgaga aattctacaa tgcaggcctg gctactgtc 650
 acagcaagct agccaacatc ctcttcaccc aggaactggc ccggagacta 700
 aaaggctctg gcgttacgac gtattctgta caccctggca cagtccaatc 750
 tgaactggtt cggcactcat ctttcatgag atggatgtgg tggcttttct 800
 cctttttcat caagactcct cagcaggag ccagaccag cctgcactgt 850
 gccttaacag aaggctctga gattctaagt gggaatcatt tcagtgactg 900
 tcatgtggca tgggtctctg cccaagctcg taatgagact atagcaaggc 950
 ggctgtggga cgtcagttgt gacctgctgg gctcccaat agactaacag 1000
 gcagtgcagt tggacccaag agaagactgc agcagactac acagtacttc 1050
 ttgtcaaaat gattctcctt caagggtttt aaaaccttta gcacaaagag 1100

agcaaaacct tccagccttg cctgcttggt gtccagttaa aactcagtgt 1150
 actgccagat tcgtctaaat gtctgtcatg tccagattta ctttgcttct 1200
 gttactgcc aagttactag agatatcata ataggataag aagaccctca 1250
 tatgacctgc acagctcatt ttccttctga aagaaactac tacctaggag 1300
 aatctaagct atagcagggg tgatttatgc aaatttgaac tagcttcttt 1350
 gttcacaatt cagttcctcc caaccaacca gtcttcactt caagagggcc 1400
 aactgcaac ctcagcttaa catgaataac aaagactggc tcaggagcag 1450
 ggcttgccca ggcattggtg atcaccggag tcagtagttc aagaccagcc 1500
 tggccaacat ggtgaaaccc cacctctact aaaaattgtg tatatctttg 1550
 tgtgtcttcc tgtttatgtg tgccaaggga gtattttcac aaagttcaaa 1600
 acagccacaa taatcagaga tggagcaaac cagtgccatc cagtctttat 1650
 gcaaatgaaa tgctgcaaag ggaagcagat tctgtatatg ttggtaacta 1700
 cccaccaaga gcacatgggt agcagggaag aagtaaaaaa agagaaggag 1750
 aatactggaa gataatgcac aaaatgaagg gactagttaa ggattaacta 1800
 gccctttaag gattaactag ttaaggatta atagcaaaag acattaaata 1850
 tgctaacata gctatggagg aattgagggc aagcaccag gactgatgag 1900
 gtcttaacaa aaaccagtgt ggcaaa 1926

<210> 8
 <211> 1126
 <212> DNA
 <213> Homo sapien

<400> 8
 gctcgccag gctgctggta cctgcgtccg cccggcgagc aggacaggct 50
 gctttggttt gtgacctca ggcaggacgg ccatcctctc cagaatgaag 100
 atcttcttgc cagtgtgtgt ggctgccctt ctgggtgtgg agcgagccag 150
 ctgctgatg tgcttctct gcttgaacca gaagagcaat ctgtactgcc 200
 tgaagccgac catctgtctc gaccaggaca actactgcgt gactgtgtct 250
 gctagtgccg gcattgggaa tctcgtgaca tttggccaca gctgagcaa 300
 gacctgttcc ccggcctgcc ccatcccaga aggcgtcaat gttggtgtgg 350
 cttccatggg catcagctgc tgccagagct ttctgtgcaa tttcagtgcg 400
 gccgatggcg ggctgcgggc aagcgtcacc ctgctgggtg ccgggctgct 450

gctgagcctg ctgccggccc tgctgcggtt tggcccctga ccgcccagac 500
 cctgtccccc gatccccag ctcaggaagg aaagcccagc cctttctgga 550
 tcccacagtg tatgggagcc cctgactcct cacgtgcctg atctgtgccc 600
 ttggtcccag gtcaggccca cccctgcac ctccacctgc ccagcccct 650
 gcctctgccc caagtggggc cagctgccct cacttctggg gtggatgatg 700
 tgaccttctt tgggggactg cggaaggagc gagggttccc tggagtctta 750
 cggccaaca tcaggaccaa gtcccatgga catgctgaca gggccccag 800
 ggagaccgtg tcagtaggga tgtgtgcctg gctgtgtacg tgggtgtgca 850
 gtgcacgtga gagcacgtgg cggcttctgg gggccatggt tggggaggga 900
 ggtgtgccag cagcctggag agcctcagtc cctgtagccc cctgccctgg 950
 cacagctgca tgcacttcaa gggcagcctt tgggggttgg ggtttctgcc 1000
 acttcggggt ctaggccctg ccccaaatcc agccagtcct gccccagccc 1050
 acccccacat tggagccctc ctgctgcttt ggtgcctcaa ataaatacag 1100
 atgtcccca aaaaaaaaaa aaaaaa 1126

<210> 9

<211> 1282

<212> DNA

<213> Homo sapien

<220>

<221> Unsure

<222> 898, 1187, 1198, 1241, 1262, 1266, 1277, 1281

<223> Unknown base

<400> 9

gaagtttctc actagggctc tctctggccc agcctttgac tgaagctggt 50
 ctggagacag gggcattaga gaagtgactc atagatggcc taaagaagcg 100
 gggccactca aggaccagc acagaggga gagggccaac ccagctggac 150
 cacaggcaaa cccattgcc tttgagagaa agaagaggac ccggtgaaac 200
 atgctgctgc tgaagaaaca cacggaggac atcagcagcg tctacgagat 250
 ccgcgagagg ctggctcgg gtgccttctc cgaggtgggt ctggcccagg 300
 agcggggctc cgcacacctc gtggccctca agtgcacccc caagaaggcc 350
 ctccggggca aggaggccct ggtggagaac gagatcgag tgctccgtag 400
 gatcagtcac cccaacatcg tcgctctgga ggatgtccac gagagccctt 450
 cccacctcta cctggccatg gaactggtga cgggtggcga gctgtttgac 500

cgcatcatgg agcgcggtc ctacacagag aaggatgccca gccatctggt 550
 gggtcagggtc cttggcgccg tctcctacct gcacagcctg gggatcgtgc 600
 accggggacct caagcccgaa aacctcctgt atgccacgcc ctttgaggac 650
 tcgaagatca tgggtctctga ctttggtactc tccaaaatcc aggctgggaa 700
 catgctaggc accgcctgtg ggacccctgg atatgtggcc ccagagctct 750
 tggagcagaa accctacggg aaggccgtag atgtgtgggc cctgggcgtc 800
 atctcctaca tctgtctgtg tgggtacccc cccttctacg acgagagcga 850
 ccctgagctc ttcagccaga tctgagggc cagctatgag tttgactntc 900
 ctttctggga tgacatctca gaatcaggca aagactttat tcggcacctt 950
 ctggagcgag accttcagaa gaggttcacc tgccaacagg ccttgcgga 1000
 cctttggatc ttttgggaca caggctttgg caggagacatc ttagggtttg 1050
 tcagttagca gatccggaag aactttgctt ggacacactg gaagcgagcc 1100
 ttcaatgcc ccttggtcct gcgccacatc cggaagctgg ggcagatccc 1150
 agagggcgag ggggcctctg agcagggcat ggscgcncac agccactnag 1200
 gccttcgtgc tggccagccc cccaagtggg gatgcccagg nagatgccga 1250
 ggccaagtgg antgancccc agatttnctt nc 1282

<210> 10
 <211> 3475
 <212> DNA
 <213> Homo sapien

<400> 10
 ggaacgagtg ggaacgtagc tggctgcaga gggcaccagc ggctgcagga 50
 cttcaccaag ggaccctgag gctcgtgagc agggaccgcg ggtgcggggt 100
 atgctggggg ctgagatcac cgtagacaac tggacactca ggaccacgcc 150
 atggaggagc tgcaggatga ttatgaagac atgatggagg agaactctgga 200
 gcaggaggaa tatgaagacc cagacatccc cgagtcccag atggaggagc 250
 cggcagctca cgacaccgag gcaacagcca cagactacca caccacatca 300
 caccgggta cccacgaggt ctatgtggag ctgcaggagc tgggtgatgga 350
 cgaaaagaac caggagctga gatggatgga ggcggcgcg tgggtgcaac 400
 tggaggagaa cctgggggag aatggggcct ggggcccgcc gcacctctct 450
 cacctcacct tctggagcct cctagagctg cgtagagtct tcaccaaggg 500

tactgtcctc ctagacctgc aagagacctc cctggctgga gtggccaacc 550
aactgctaga caggtttatac tttgaagacc agatccggcc tcaggaccga 600
gaggagctgc tccgggccct gctgcttaaa cacagccacg ctggagagct 650
ggaggccctg ggggggtgtga agcctgcagt cctgacacgc tctggggatc 700
cttcacagcc tctgctcccc caacactcct cactggagac acagctcttc 750
tgtgagcagg gagatggggg cacagaaggg cactcaccat ctggaattct 800
ggaaaagatt ccccccggatt cagaggccac gttggtgcta gtgggccgag 850
ccgacttcct ggagcagccg gtgctgggct tcgtgaggct gcaggaggca 900
gcggagctgg aggcgggtga gctgccggtg cctatacgt tcctctttgt 950
gttgctggga cctgaggccc cccacatcga ttacaccag cttggccggg 1000
ctgctgccac cctcatgtca gagagggtgt tccgcataga tgccatcatg 1050
gctcagagcc gaggggagct gctgcactcc ctagagggtt tcctggactg 1100
cagcctagtg ctgcctccca ccgatgcccc ctccgagcag gcactgctca 1150
gtctggtgcc tgtgcagagg gagctacttc gaaggcgcta tcagtccagc 1200
cctgccaaag cagactccag cttctacaag ggccctagact taaatggggg 1250
cccagatgac cctctgcagc agacaggcca gctcttcggg ggccctggtgc 1300
gtgatatacc gcgcgcgtac ccctattacc tgagtacat cacagatgca 1350
ttcagcccc aggtcctggc tgccgtcacc ttcactact ttgctgcact 1400
gtcaccgcgc atcaccttcg ggggcctcct gggagaaaag acccggaacc 1450
agatgggagt gtccgagctg ctgatctcca ctgcagtga gggcattctc 1500
ttcgccctgc tgggggctca gccctgctt gtggtcggtt tctcaggacc 1550
cctgctggtg tttgaggaag ccttctcttc gttctgcgag accaacggtc 1600
tagagtacat cgtgggcgcg gtgtggatcg gcttctgggt catcctgctg 1650
gtggtgttgg tggtggcctt cgagggtagc ttctggtcc gcttcatctc 1700
ccgctatacc caggagatct tctccttctt catttccctc atcttcatct 1750
atgagacttt ctccaagctg atcaagatct tccaggacca cccactacag 1800
aagacttata actacaacgt gttgatggtg cccaaacctc agggcccccct 1850
gcccacaca gccctcctct cccttgctct catggccggt accttcttct 1900
ttgccatgat gctgcgcaag ttcaagaaca gctcctatct ccctggcaag 1950

ctgcgtcggg tcacgggga cttcggggtc cccatctcca tcctgatcat 2000
 ggtcctggtg gatttcttca ttcaggatac ctacacccag aaactctcgg 2050
 tgctgatgg cttcaagggtg tccaactcct cagcccgggg ctgggtcatc 2100
 caccactgg gcttgcggtc cgagtttccc atctggatga tgtttgctc 2150
 cgccctgcct gctctgctgg tcttcatcct catattcctg gagtctcaga 2200
 tcaccacgct gattgtcagc aaacctgagc gcaagatggt caagggctcc 2250
 ggcttccacc tggacctgct gctggtagta ggcattgggtg ggggtggccgc 2300
 cctctttggg atgccctggc tcagtgccac caccgtgcgt tccgtcacc 2350
 atgccaacgc cctcactgtc atgggcaaag ccagcacccc aggggctgca 2400
 gccagatcc aggaggtcaa agagcagcgg atcagtggac tcctggtcgc 2450
 tgtgcttggt ggctgtcca tcctcatgga gccatcctg tcccgcaccc 2500
 ccctggctgt actgtttggc atcttctct acatgggggt cactcgctc 2550
 agcggcatcc agctctttga ccgcatcttg cttctgttca agccacccaa 2600
 gtatcaccca gatgtgcct acgtcaagcg ggtgaagacc tggcgcatgc 2650
 acttattcac gggcatccag atcatctgcc tggcagtgt gtgggtggtg 2700
 aagtcacgc cggcctcct ggccctgcc ttctgctca tcctcactgt 2750
 gccgtgcgg cgcgtcctgc tgccgtcat cttcaggaac gtggagcttc 2800
 agtgtctgga tgctgatgat gccaaaggca cctttgatga ggaggaagg 2850
 cgggatgaat acgacgaagt ggccatgcct gtgtgagggg cgggcccagg 2900
 cctagaccc tccccacca ttccacatcc ccacctcca aggaaaagca 2950
 gaagtcatg ggcacctcat ggactccagg atcctcctgg agcagcagct 3000
 gagggcccag ggctgtgggt ggggaaggaa ggcgtgtcca ggagaccttc 3050
 caciaagggt agcctggctt ttctggctgg ggatggcoga tggggcccac 3100
 attagggggt ttgttgaca gtccctcctg ttgccacact ttcactgggg 3150
 atccctgct ggaagactta gatctgagcc ctccctcttc ccagcacagg 3200
 caggggtaga agcaaaggca ggaggtgggt gagcgggtgg ggtgcttgct 3250
 gtgtgacctt gggcaagtcc cttgacctt ccagcctata tttcctcttc 3300
 tgtaaaatgg gtatattgat gataataccc acattacagg atggttactg 3350
 aggaccaaag atacatgtaa aatagggctt tgtaaaactcc acagggactg 3400

ttctatagca gtcacatctt gtctttgaac gtacccaagg tcacatagct 3450

gggatttgaa ctgagccgtg cagct 3475

<210> 11

<211> 2290

<212> DNA

<213> Homo sapien

<220>

<221> Unsure

<222> 11, 30, 39, 45

<223> Unknown base

<400> 11

ctcttttgct nggacttcac tgtcactcan gaaaaagcng tgaanctaaa 50
acagaagaat cttagcactg agataaggga gaacctgtca gagctccgtc 100
aggagaattc caagttgacg ttcaatcagc tgctgaccog cttctctgcc 150
tacatggtag cctgggttgt ctctacagga gtggccatag cctgctgtgc 200
agccgtttat tacctggctg agtacaactt agagttcctg aagacacaca 250
gtaaccctgg ggcgggtgctg ttactgcctt tcgttgtgtc ctgcattaat 300
ctggccgtgc catgcatcta ctccatgttc aggcttgtgg agagggtacga 350
gatgccacgg cacgaagtct acgttctcct gatccgaaac atctttttga 400
aaatatcaat cattggcatt ctttggttact attggtcaa caccgtggcc 450
ctgtctggtg aagagtgttg ggaaaccctc attggccagg acatctaccg 500
gctccttctg atggattttg tgttctcttt agtcaattcc ttctggggg 550
agtttctgag gagaatcatt gggatgcaac tgatcacaag tcttggcctt 600
caggagtttg acattgccag gaacgttcta gaactgatct atgcacaaac 650
tctggtgtgg attggcatct tcttctgccc cctgctgccc tttatccaaa 700
tgattatgct tttcatcatg ttctactcca aaaatatcag cctgatgatg 750
aatttcacgc ctccgagcaa agcctggcgg gcctcacaga tgatgaattt 800
cttcatcttc ttgctctttt tcccatcctt caccgggggc ttgtgcaccc 850
tggccatcac catctggaga ttgaagcctt cagctgactg tggccctttt 900
cgagggtctgc ctctcttcat tcaactccatc tacagctgga tcgacacct 950
aagtacacgg cctggctacc tgtgggttgt ttggatctat cggaacctca 1000
ttggaagtgt gcattctttt ttcatcctca cctcattgt gctaatcatc 1050
acctatcttt actggcagat cacagaggga aggaagatta tgataaggct 1100

gctccatgag cagatcatta atgagggcaa agataaaatg ttcctgatag 1150
 aaaaattgat caagctgcag gatatggaga agaaagcaaa cccagctca 1200
 cttgttctgg aaaggagaga ggtggagcaa caaggctttt tgcatttggg 1250
 ggaacatgat ggcagtcttg acttgcgac tagaagatca gttcaagaag 1300
 gtaatccaag ggctgatga ctcttttggg aaccagacac caatcaaata 1350
 aggggaggag atgaaaatgg aatgatttct tccatgccac ctgtgccttt 1400
 aggaactgcc cagaagaaaa tccaaggctt tagccaggag cggaaaactga 1450
 ctaccatgta attatcaaag taaaattggg cattccatgc tatttttaat 1500
 acctggattg ctgatttttc aagacaaaat acttgggggtt ttccaataaa 1550
 gattgttgta atattgaaat gagcctacaa aaacctagga agagataact 1600
 aggaataat gtatattatc ttcaagaaat gtgtgcagga atgattgggt 1650
 cttagaaatc tctcctgcca gacttcccag acctggcaaa ggtttagaaa 1700
 ctgttgctaa gaaaagtggg ccatcctgaa taaacatgta atactccagc 1750
 agggatatga agcctctgaa ttgtagaacc tgcatttatt tgtgactttg 1800
 aactaaagac atcccccatg tcccaaagggt ggaatacaac cagaggcttc 1850
 atctctgaac tttcttgct actgattaca tgagtctttg gagtggggga 1900
 tggaggagggt tctgcccctg tgagggtgta tacatgacca tcaaagtcct 1950
 acgtcaagct agctttgcac agtggcagta ccgtagccaa tgagatttat 2000
 ccgagacgag attattgcta attggaaatt ttcccaatac cccaccgtga 2050
 tgacttgaat tataatcagc gctggcaatt tttgacagtc tctacggaga 2100
 ctgaataaga aaaaagaaaa gaaaagaaat tagctgggtg cgatggctta 2150
 tgcttgtaat cccggcactt tgggaggctg aggcaagcgg atcacttaat 2200
 gtcaggagtt caagaccagc ctggccaaca tggtgaaacc ccgtctctac 2250
 taaggataaa aaaactggct gggcgtgggtg gtacatgcct 2290

<210> 12
 <211> 2148
 <212> DNA
 <213> Homo sapien

<400> 12
 gcttcagggt acagctcccc cgcagccaga agccgggctt gcagcccctc 50
 agcaccgctc cgggacaccc caccgccttc ccaggcgtga cctgtcaaca 100

gcaacttcgc ggtgtggtga actctctgag gaaaaacat tttgattatt 150
actctcagac gtgcgtggca acaagtgact gagacctaga aatccaagcg 200
ttggagggtcc tgaggccagc ctaagtcgct tcaaaatgga acgaaggcgt 250
ttgtgggggtt ccattcagag ccgatacatc agcatgagtg tgtggacaag 300
cccacggaga cttgtggagc tggcagggca gagcctgctg aaggatgagg 350
ccctggccat tgccgccctg gagttgctgc ccaggaggct cttcccgcca 400
ctcttcatgg cagcctttga cgggagacac agccagaccc tgaaggcaat 450
ggtgcaggcc tggcccttca cctgcctccc tctgggagtg ctgatgaagg 500
gacaacatct tcacctggag accttcaaag ctgtgcttga tggacttgat 550
gtgctccttg cccaggaggt tcgccccagg aggtggaaac ttcaagtgtc 600
ggatttacgg aagaactctc atcaggactt ctggactgta tggctctggaa 650
acagggccag tctgtactca tttccagagc cagaagcagc tcagcccatg 700
acaaagaagc gaaaagtaga tggtttgagc acagaggcag agcagccctt 750
cattccagta gaggtgctcg tagacctgtt cctcaaggaa ggtgcctgtg 800
atgaattgtt ctctacctc attgagaaaag tgaagcgaaa gaaaaatgta 850
ctacgcctgt gctgtaagaa gctgaagatt tttgcaatgc ccatgcagga 900
tatcaagatg atcctgaaaa tgggtgcagct ggactctatt gaagatttgg 950
aagtgacttg tacctggaag ctacccacct tggcgaaatt ttctccttac 1000
ctgggccaga tgattaatct gcgtagactc ctctctccc acatccatgc 1050
atcttctac atttccccgg agaaggaaga gcagtatatc gcccagttca 1100
cctctcagtt cctcagtcg cagtgcctgc aggtctctta tgtggactct 1150
ttatTTTTcc ttagaggccg cctggatcag ttgctcaggc acgtgatgaa 1200
ccccttgaa accctctcaa taactaactg ccggctttcg gaaggggatg 1250
tgatgcatct gtcccagagt ccagcgtca gtcagctaag tgtcctgagt 1300
ctaagtggg tcatgctgac cgatgtaagt cccgagcccc tccaagctct 1350
gctggagaga gcctctgcca ccctccagga cctggctttt gatgagtgtg 1400
ggatcacgga tgatcagctc cttgccctcc tgccttccct gagccactgc 1450
tccagctta caaccttaag cttctacggg aattccatct ccatatctgc 1500
cttgagagt ctctgcagc acctcatcgg gctgagcaat ctgaccacg 1550

tgctgtatcc tgtccccctg gagagttatg aggacatcca tggtagcctc 1600
 cacctggaga ggcttgcccta tctgcatgcc aggctcaggg agttgctgtg 1650
 tgagttgggg cggcccagca tggctctggct tagtgccaac ccctgtcctc 1700
 actgtgggga cagaaccttc tatgacccgg agcccatcct gtgcccctgt 1750
 ttcattgccta actagctggg tgcacatatc aaatgcttca ttctgcatac 1800
 ttggacacta aagccaggat gtgcatgcat cttgaagcaa caaagcagcc 1850
 acagtttcag acaaatgttc agtgtgagtg aggaaaacat gttcagttag 1900
 gaaaaaacat tcagacaaat gttcagttag gaaaaaaagg ggaagttggg 1950
 gataggcaga tggtgacttg aggagttaat gtgatctttg gggagataca 2000
 tcttatagag ttagaaatag aatctgaatt tctaaaggga gattctggct 2050
 tgggaagtac atgtaggagt taatccctgt gtagactgtt gtaaagaaac 2100
 tgttgaaaat aaagagaagc aatgtgaagc aaaaaaaaaa aaaaaaaaaa 2148

<210> 13

<211> 3604

<212> DNA

<213> Homo sapien

<220>

<221> Unsure

<222> 3505, 3583

<223> Unknown base

<400> 13

gggcaggctc agtgtgagtg aactggaggc ttctctacaa catgacccaa 50
 aggagcattg caggctctat ttgcaacctg aagtttgtga ctctcctggg 100
 tgccttaagt tcagaactcc cattcctggg agctggagta cagcttcaag 150
 acaatgggta taatggattg ctcatgcca ttaatcctca ggtacctgag 200
 aatcagaacc tcattctcaa cattaaggaa atgataactg aagcttcatt 250
 ttacctatct aatgctacca agagaagagt atttttcaga aatataaaga 300
 ttttaatacc tgccacatgg aaagctaata ataacagcaa aataaaacaa 350
 gaatcatatg aaaaggcaaa tgtcatagtg actgactggg atggggcaca 400
 tggagatgat ccatacacc tacaatacag aggggtgtgga aaagaggga 450
 aatacattca ttccacacct aatttcctac tgaatgataa cttaacagct 500
 ggctacggat cagcaggccg agtgtttgtc catgaatggg ccacacctcg 550
 ttgggggtgtg ttcatgagtg atatcaatga caaacctttc tacataaatg 600

ggcaaaatca aattaaagtg acaaggtggt catctgacat cacaggcatt 650
 tttgtgtgtg aaaaagggtcc ttgcccccaa gaaaactgta ttattagtaa 700
 gcttttttaa gaaggatgca cctttatcta caatagcacc caaaatgcaa 750
 ctgcatcaat aatgttcatg caaagtttat cttctgtggt tgaattttgt 800
 aatgcaagta cccacaacca agaagcacca aacctacaga accagatgtg 850
 cagcctcaga agtgcattgg atgtaatcac agactctgct gactttcacc 900
 acagctttcc catgaatggg actgagcttc cacctcctcc cacattctcg 950
 cttgtacagg ctggcgacaa agtgggtctgt ttagtgctgg atgtgtccag 1000
 caagatggca gaggttgaca gactccttca actacaacaa gccgcagaat 1050
 tttatttgat gcagattggt gaaattcata ccttcgtggg cattgccagt 1100
 ttcgacagca aaggagagat cagagcccag ctacaccaaa ttaacagcaa 1150
 tgatgatcga aagttgctgg tttcatatct gccaccact gtatcagcta 1200
 aaacagacat cagcatttgt tcagggttta agaaaggatt tgagggtggt 1250
 gaaaaactga atggaaaagc ttatggctct gtgatgatat tagtgaccag 1300
 cggagatgat aagcttcttg gcaattgctt acccactgtg ctcagcagtg 1350
 gttcaacaat tcactccatt gccctgggtt catctgcagc cccaaatctg 1400
 gaggaattat cacgtcttac aggaggttta aagttctttg ttccagatat 1450
 atcaaactcc aatagcatga ttgatgctt cagtagaatt tcctctggaa 1500
 ctggagacat tttccagcaa catattcagc ttgaaagtac aggtgaaaat 1550
 gtcaaacctc accatcaatt gaaaaacaca gtgactgtgg ataatactgt 1600
 gggcaacgac actatgtttc tagttacgtg gcaggccagt ggtcctcctg 1650
 agattatatt atttgatcct gatggacgaa aatactacac aaataatttt 1700
 atcaccaatc taacttttcg gacagctagt ctttggttc caggaacagc 1750
 taagcctggg cactggactt acaccctgaa caatacccat cattctctgc 1800
 aagccctgaa agtgacagtg acctctcgcg cctccaactc agctgtgccc 1850
 ccagccactg tggaagcctt tgtggaaaga gacagcctcc attttctca 1900
 tcctgtgatg atttatgcca atgtgaaaca gggattttat cccattctta 1950
 atgccactgt cactgccaca gttgagccag agactggaga tcctgttacg 2000
 ctgagactcc ttgatgatgg agcaggtgct gatgttataa aaaatgatgg 2050

aatttactcg aggtatTTTT tctcctttgc tgcaaattgg agatatagct 2100
tgaaagtgca tgtcaatcac tctcccagca taagcacccc agcccactct 2150
attccagggg gtcagtctat gtatgtacca ggttacacag caaacggtaa 2200
tattcagatg aatgctccaa ggaaatcagt aggcagaaat gaggaggagc 2250
gaaagtgggg ctttagccga gtcagctcag gaggtcctt ttcagtgtg 2300
ggagtccag ctggcccca ccctgatgtg tttccaccat gcaaaattat 2350
tgacctggaa gctgtaaaag tagaagagga attgacccta tcttggacag 2400
cacctggaga agactttgat cagggccagg ctacaagcta tgaaataaga 2450
atgagtaaaa gtctacagaa tatccaagat gactttaaca atgctatTTT 2500
agtaaataca tcaaagcgaa atcctcagca agctggcatc agggagatat 2550
ttacgttctc accccaaatt tccacgaatg gacctgaaca tcagccaaat 2600
ggagaaacac atgaaagcca cagaatttat gttgcaatac gagcaatgga 2650
taggaactcc ttacagtctg ctgtatctaa cattgccag gcgcctctgt 2700
ttattcccc caattctgat cctgtacctg ccagagatta tcttatattg 2750
aaaggagttt taacagcaat gggtttgata ggaatcattt gccttattat 2800
agttgtgaca catcatactt taagcaggaa aaagagagca gacaagaaag 2850
agaatggaac aaaattatta taaataaata tccaaagtgt cttccttctt 2900
agatataaga cccatggcct tcgactacaa aaacatacta acaaagtcaa 2950
attaacatca aaactgtatt aaaatgcatt gagtttttgt acaatacaga 3000
taagatTTTT acatggtaga tcaacaattc tttttggggg tagattagaa 3050
aacccttaca ctttggctat gaacaaataa taaaaattat tctttaaaagt 3100
aatgtcttta aaggcaaagg gaagggtaaa gtcggaccag tgtcaaggaa 3150
agtttgTTTT attgaggtgg aaaaatagcc ccaagcagag aaaaggaggg 3200
taggtctgca ttataactgt ctgtgtgaag caatcattta gttactttga 3250
ttaatTTTTc ttttctcctt atctgtgcag tacagggtgc ttgtttacat 3300
gaagatcatg ctatatttta tatatgtagc ccctaatagca aagctcttta 3350
cctcttgcta ttttggtata tatatttcag atgacatctc cctgctaatag 3400
ctcagagatc ttttttact gtaagaggta acctttaaca atatgggtat 3450
tacctttgtc tcttcatacc ggttttatga caaagggtcta ttgaatttat 3500

ttgtntgtaa gtttctactc ccatcaaagc agctttctaa gtttattgcc 3550
 ttgggttatt atggaatgat agttatagcc ccntataatg ccttacctag 3600
 gaaa 3604

<210> 14
 <211> 2479
 <212> DNA
 <213> Homo sapien

<400> 14
 gtcatattga acattccaga tacctatcat tactcgatgc tgttgataac 50
 agcaagatgg ctttgaactc agggtcacca ccagctattg gaccttacta 100
 tgaaaacccat ggataccaac cggaaaaccc ctatcccgcag cagcccactg 150
 tgggtccccac tgtctacgag gtgcatccgg ctcagtacta cccgtcccc 200
 gtgccccagt acgccccgag ggtcctgacg caggcttcca accccgtcgt 250
 ctgcacgcag cccaaatccc catccgggac agtgtgcacc tcaaagacta 300
 agaaagcact gtgcatcacc ttgaccctgg ggaccttcct cgtgggagct 350
 gcgctggccg ctggcctact ctggaagttc atgggcagca agtgctcaa 400
 ctctgggata gagtgcgact cctcaggtac ctgcatcaac ccctctaact 450
 ggtgtgatgg cgtgtcacac tgccccggcg gggaggacga gaatcgggtg 500
 gtctgcctct acggacccaa cttcatcctt cagatgtact catctcagag 550
 gaagtcttgg caccctgtgt gccaaagacga ctggaacgag aactacgggc 600
 gggcggcctg cagggacatg ggctataaga ataattttta ctctagccaa 650
 ggaatagtgg atgacagcgg atccaccagc tttatgaaac tgaacacaag 700
 tgccggcaat gtcgatatct ataaaaaact gtaccacagt gatgcctggt 750
 cttcaaaagc agtggtttct ttacgctggt tagcctgcgg ggtcaacttg 800
 aactcaagcc gccagagcag gatcgtgggc ggtgagagcg cgctcccggg 850
 ggcttgcccc tggcaggtca gcctgcacgt ccagaacgtc cacgtgtgcg 900
 gaggtccat catcaccccc gagtggatcg tgacagccgc ccactgcgtg 950
 gaaaaacctc ttaacaatcc atggcattgg acggcatttg cggggatttt 1000
 gagacaatct ttcattgtct atggagccgg ataccaagta caaaaagtga 1050
 tttctcatcc aaattatgac tccaagacca agaacaatga cattgcgctg 1100
 atgaagctgc agaagcctct gactttcaac gacctagtga aaccagtgtg 1150

tctgccaac ccaggcatga tgctgcagcc agaacagctc tgctggattt 1200
ccgggtgggg ggccaccgag gagaaagggg agacctcaga agtgctgaac 1250
gctgccaagg tgctttctcat tgagacacag agatgcaaca gcagatatgt 1300
ctatgacaac ctgatcacac cagccatgat ctgtgccggc ttcctgcagg 1350
ggaacgtcga ttcttgccag ggtgacagtg gagggcctct ggtcacttcg 1400
aacaacaata tctggtggct gataggggat acaagctggg gttctggctg 1450
tgccaaagct tacagaccag gagtgtacgg gaatgtgatg gtattcacgg 1500
actggattta tcgacaaatg aaggcaaacg gctaataccac atggtcttcg 1550
tccttgacgt cgttttacia gaaaacaatg gggctggttt tgcttccccg 1600
tgcatgattt actcttagag atgattcaga ggtcacttca tttttattaa 1650
acagtgaact tgtctggctt tggcactctc tgccatactg tgcaggctgc 1700
agtggctccc ctgccagcc tgctctccct aacccttgt ccgcaagggg 1750
tgatggccgg ctggttgtgg gcaactggcg tcaattgtgg aaggaagagg 1800
gttggaggct gccccattg agatcttct gctgagtcct ttccaggggc 1850
caattttgga tgagcatgga gctgtcactt ctcaactgct ggatgacttg 1900
agatgaaaaa ggagagacat ggaaagggag acagccagggt ggcacctgca 1950
ggggtgccc tctggggcca cttggtagtg tccccagcct acttcacaag 2000
gggattttgc tgatgggttc ttagagcctt agcagccctg gatggtggcc 2050
agaaataaag ggaccagccc ttcattgggtg gtgacgtggg agtcacttgt 2100
aaggggaaca gaaacatttt tgttcttatg gggtgagaat atagacagtg 2150
cccttggtgc gagggagca attgaaaagg aacttgccct gagcactcct 2200
ggtgcaggtc tccacctgca cattgggtgg ggctcctggg agggagactc 2250
agccttctc ctcatcctcc ctgacctgc tctagcacc ctggagagtg 2300
aatgcccctt ggtccctggc agggcgccaa gtttggcacc atgtcggcct 2350
cttcaggcct gatagtcatt ggaaattgag gtccatgggg gaaatcaagg 2400
atgctcagtt taaggtacac tgtttccatg ttatgtttct acacattgat 2450
gggtggtagc ctgagttcaa agccatctt 2479

<210> 15
<211> 969
<212> DNA
<213> Homo sapien

<400> 15

ggatttccgg gctccatggc aagatccctt ctctgcccc tgcagatcct 50
actgctatcc ttagccttgg aaactgcagg agaagaagcc cagggtgaca 100
agattattga tggcgcccca tgtgcaagag gctcccaccc atggcagggtg 150
gccctgctca gtggcaatca gctccactgc ggaggcgtcc tgggtcaatga 200
gcgctgggtg ctactgcgg ccactgcaa gatgaatgag tacaccgtgc 250
acctgggcag tgatacgtg ggcgacagga gagctcagag gatcaaggcc 300
togaagtcac tccgccaccc cggtactcc acacagaccc atgttaatga 350
cctcatgctc gtgaagctca atagccaggc caggctgtca tccatggtga 400
agaaagtcag gctgccctcc cgctgcgaac cccctggaac cacctgtact 450
gtctccggct ggggcactac cacgagccca gatgtgacct ttccctctga 500
cctcatgtgc gtggatgtca agctcatctc ccccaggac tgcacgaagg 550
tttacaagga cttactggaa aattccatgc tgtgcgctgg catccccgac 600
tccaagaaaa acgctgcaa tgggtgactca gggggaccgt tgggtgtgcag 650
aggtaccctg caaggctctg tgtcctgggg aactttccct tgcggccaac 700
ccaatgaccc aggagtctac actcaagtgt gcaagttcac caagtggata 750
aatgacacca tgaaaaagca tcgctaacgc cacactgagt taattaactg 800
tgtgcttcca acagaaaatg cacaggagtg aggacgccga tgacctatga 850
agtcaaattt gactttacct ttcctcaaag atatatttaa acctcatgcc 900
ctgttgataa accaatcaaa ttggtaaaga cctaaaacca aaacaaataa 950
agaaacacaa aacctcaa 969

<210> 16

<211> 1195

<212> DNA

<213> Homo sapien

<400> 16

ccgagactca cgggtcaagct aaggcgaaga gtgggtggct gaagccatac 50
tattttatag aattaatgga aagcagaaaa gacatcacia accaagaaga 100
actttggaat atgaagccta ggagaaattt agaagaagac gattatttgc 150
ataaggacac gggagagacc agcatgctaa aaagacctgt gcttttgcac 200
ttgcacaaaa cagcccatgc tgatgaattt gactgccctt cagaacttca 250
gcacacacag gaactcttcc cacagtggca cttgcccaatt aaaatagctg 300

ctattatagc atctctgact tttctttaca ctcttctgag ggaagtaatt 350
 cacccttttag caacttccca tcaacaatat ttttataaaa ttccaatcct 400
 ggcatcaac aaagtcttgc caatggtttc catcactctc ttggcattgg 450
 tttacctgcc aggtgtgata gcagcaattg tccaacttca taatggaacc 500
 aagtataaga agtttccaca ttggttggat aagtggatgt taacaagaaa 550
 gcagtttggg cttctcagtt tcttttttgc tgtactgcat gcaatttata 600
 gtctgtctta cccaatgagg cgatcctaca gatacaagtt gctaaactgg 650
 gcatatcaac aggtccaaca aaataaagaa gatgcctgga ttgagcatga 700
 tgtttggaga atggagattt atgtgtctct gggaattgtg ggattggcaa 750
 tactggctct gttggctgtg acatctattc catctgtgag tgactctttg 800
 acatggagag aatttcacta tattcagagc aagctaggaa ttgtttccct 850
 tctactgggc acaatacacg cattgatttt tgcttggaaat aagtggatag 900
 atataaaaca atttgtatgg tatacacctc caacttttat gatagctgtt 950
 ttccttccaa ttgttgtcct gatatttaaa agcatactat tcttgccatg 1000
 cttgaggaag aagatactga agattagaca tggttgggaa gacgtcacca 1050
 aaattaacaa aactgagata tgttcccagt tgtagaatta ctgtttacac 1100
 acatttttgt tcaatattga tatattttat caccaacatt tcaagtttgt 1150
 atttgtaat aaaatgatta ttcaaggaaa aaaaaaaaaa aaaaa 1195

<210> 17
 <211> 6255
 <212> DNA
 <213> Homo sapien

<400> 17
 ggtggagaca ccgcctcagg gctcggtgca cagtggacat ttggggagcg 50
 ttgtgggtga cccccacaca ggcaactggga atgcagggga gagggggcca 100
 agggggaaag gggccagagt gttggctttg gattcaggag ggatggattc 150
 cagtcttagc ttgccactta ttaggactcc tgagagcagc ctccatgagg 200
 ccctggacca gtgcatgacc gccctggacc tcttctcac caaccagttc 250
 tcagaagcac tcagctacct caagcccaga accaaggaaa gcatgtacca 300
 ctcactgaca tatgccacca tcttgagat gcaggccatg atgacctttg 350
 accctcagga catcctgctt gccggcaaca tgatgaagga ggcacagatg 400

ctgtgtcaga ggcaccggag gaagtcttct gtaacagatt ccttcagcag 450
 cctgggtgaac cgccccacgc tgggccaatt cactgaagag gaaatccacg 500
 ctgaggtctg ctatgcagag tgctgtctgc agcgagcagc cctgaccttc 550
 ctgcaggggtt cctcacacgg aggggcagtc agggccagag ccttgcatga 600
 tccctctcac gctgcagct gccacactgg gccaggccgt cagcatcttt 650
 tcctcctgca ggacgagaac atggtgagct tcatcaaagg cggcatcaaa 700
 gttcgaaaca gctaccagac ctacaaggag ctggacagcc ttgttcagtc 750
 ctacaatac tgcaagggtg agaaccaccc gcactttgaa ggaggagtga 800
 agcttggtgt aggggccttc aacctgacac tgtccatgct tcctactagg 850
 atcctgaggc tggtggagtt tgtggggttt tcaggaaaca aggactatgg 900
 gctgctgcag ctggaggagg gagcgtcagg gcacagcttc cgctctgtgc 950
 tetgtgtcat gctcctgctg tgctaccaca ccttcctcac ctctgtgctc 1000
 ggtactggga acgtcaacat cgaggaggcc gagaagctct tgaagcccta 1050
 cctgaaccgg taccctaagg gtgccatctt cctgttcttt gcagggagga 1100
 ttgaagtcac taaaggcaac attgatgcag tgagtgatgg ggggtccgggc 1150
 cggggctggg gatccctcgg ggtctcccag accagcagga agtcaggcac 1200
 atgtgacata ctcagggaca ggatagactg ggggcggggg gggggccaag 1250
 agagaaccaa ccagagagca ggggcaggag aggcccttct ggcagagcag 1300
 cctgggaaga caagggagga ggaggcattt gtgggtgctg ggattttgac 1350
 tgggagatat aggactgcag cattgcagtg gagggaggtg gagggaggtg 1400
 cttgaggag gcagaggtta ggaaagccca tctgtttagg gcatgacgat 1450
 taggctggag tctggtacct cccctccatt atagctctct cctgctcttt 1500
 cttttgtta ctaaaaacca gagtcttagg cgggggctgt atttgagccc 1550
 aacgtcatgt aagacttagg aggtaaaacc aggactggag gccagatctc 1600
 ctggctcctg gggccccacc tgagcctagc acagggtgg accactatgc 1650
 cctggaggag tcccggctct ctgtggtgtt gggaggttcg gaggatgcag 1700
 aggggttggg gctgggtggg caccgctcag gctgaccaga aggtgctgc 1750
 aggccatccg gcgtttcgag gagtgtgtg agggccagca gcactggaag 1800
 cagttccacc acatgtgcta ctgggagctg atgtggtgct tcacctaaa 1850

gggccagtgg aagatgtcct acttctacgc cgacctgctc agcaaggaga 1900
 actgctgggc caaggtgggc tgatgccacg tgtagggggc attgggtgac 1950
 cagggtgac tgtgtgcctc cagaccacgg gccaaatccc taactgaaca 2000
 cagatgtctc agctggaatc taaacataac cttaaattct aataggactc 2050
 aggttggaa ggaactaaag accacaagag aaacttctga accacaatgt 2100
 gtcacaaaga gatttctagt cacaaaggac agaaacatgg ctccctctgt 2150
 ccagtagaac tgtttctgtg gtagaaatgt tctacttatg cactgcccaa 2200
 atatggtagt caccagccac atgtgcacaa tgagcacatg aaatgtgcct 2250
 agtgcaactg ggaaactgat tgttttcagt tttatttaat ttttaattaac 2300
 taaatgttaa atttaaatac ccatgtaggg cttgtggcca ctatattgga 2350
 ctatgcaggt ccaaaacaca aaaggctcat ataactgaac attcttggca 2400
 catccgactt caggtagggc tggatccagg aattcaaag atgtcgtctg 2450
 gcttggctct tccatttgtg gctgtgctct ctccatgac atctttgttt 2500
 ctgctgcac tttgcaggaa ggttctctcc atgtgacagg caaggtggcc 2550
 acgggtgct tctactcata tcctccctt gggttcaacc agagtccac 2600
 agtttgagcc tcaactggtc gacttgtcac ctgccaatgc ctggaacaga 2650
 ggggtgggaa gattcctcat gggctgagag taggagaggg gtggttccac 2700
 agaagaaaat gatgcacca gaaatagtgg agggattaac aagatgccat 2750
 acaggcaaaa caaagccaaa cagatgcccg cctaccaaag atgaaattta 2800
 tcatggtgaa tattgaaata agtgtagct tgtaccatca tagtaatgat 2850
 agtgcagaaa ttggaaccaa gagtcttaca accacctagc tcagcaaacg 2900
 tctaactctg tatttgtaaa tacacaggac atgtgtcttc atggcttcat 2950
 ccctgccca tagcagacat tgctaatac tcctctgcca tgagcctagc 3000
 tgtgacctta gataccttcc ctgcaaagct ccaggcagcc gttagaactg 3050
 accacattg gcacctgtta ggagacctgt catctgcac tggctccctcc 3100
 cctcctctg catggaggtc tcttcctag cctgctgg ggaccaagct 3150
 gaaggggaat tctctgggtc tggggcaggt ggggtgggg aaggagcag 3200
 gcttctactg agctctcaac atgtctggca cctgtcatgt cctccacacc 3250
 acaccagtg aggagaagtt attatctcca ttgggcacat gagggccact 3300

gatgctaagc gaggactgtg actttccac ccacatggct gttggtgaca 3350
gacaccggat ttgaggacag tctgtgtga ctgagaggcc tctgcttctc 3400
tcttgctcct agagtcctcc tgaggagtcg gggcttgccc tgagcccacc 3450
ctgctgttga aggtgcttcc tcaggcccag ctcccatggc cccacacccc 3500
cctcctcatc acctcctact cccaaaaagg acaaagcctc agggaaacctt 3550
ttttcttttt ttagagacag ggtcttgcta tgttggtcag gctagtcttg 3600
aactcctggg cccaagcaat cttcccacct ctgcctccta aagtgtggg 3650
attctgggccc ttagggaacc tttttgaact gaaagtgact ctggaagcct 3700
tctgttagag tgagggtggg ggctggggct aaccatatgg ggaaggagag 3750
acctggtggg ggcacacagc tgctatatag aggaacagaa ggtgggccag 3800
gcctcccagc tgtcaggaaa tctggctcag tcccagacc gctgtgtggc 3850
tttggggtgg ccagtcctc tctctctgca acactctct catgaggact 3900
tctgtgaaaa atgggggttg taacctctg agttctgggg cccacccat 3950
ttctaatactc cagaacttg ccaccacaga ctccaccaac ttctagtct 4000
ggggcctggg cctctggcca ttgcatagg caccacctgc tctgtgcagg 4050
cagcgcccc ctctgccagg atcctccgag gtcagctgct gggctctgac 4100
cgcagacctt ggctgagcga cggatgaacg gagtatgcag acacaggctt 4150
gcctgtcagc agatggggga cccctgccag agtcagcagc ggccccata 4200
agcctgccac gcttgcatth atttagtaca gatgtaatga caaaggcta 4250
aagcaaactc catttgtggg taattaacat tgtcgcccc ccagaaagag 4300
cagtcctccg catgatgatt aaaggccagg ttccgaggcc taagtaaacc 4350
aacttatcta gatcaattcc ctacttctt gttatctact ctgagagaat 4400
tcagctgctc tcagccaaat cctttccga agcttttgca aaacctcga 4450
gccttccaag gtttgcttct ttctgtaatt tttctacca cctgacct 4500
tctcctgcag tcagccctgt ggaggccttt gtgtttccc cagtgtggc 4550
agcctagagg ctgagatggc cagaaacaag gtggtgacag tggcgtgctc 4600
agggcttggg aaaccaagg agctaaaggc atgccaggc aaccaaagag 4650
gacaggaagg cttctgagga gagacctctg aggtgggtct tggagaggaa 4700
ggacttaggg aggcagagt gaggaagtga gaggacccc caagccaaga 4750

gggcggcagg accaaaggct cagaagccag ggcgctgcag aggggctgtg 4800
 tgccacaggg tgaagagttt gtgtggcaga agggcagggg gcttgcatca 4850
 ggggtgacag ctgctctttt gtcccagcat agcccctgta catccctgga 4900
 gagctggggc gtccacaact ctaagtcaca gcccccatcc taaccctggg 4950
 ggtgcagtga ggggtgagctg tctgtgggca ggagggaaga ctcttgagga 5000
 tgagcctggg gaagggataa tggcatcccg ggccgaggag cagcacaggc 5050
 agaggcctgg ggagagttta aggagtgtag gggaggaaat ggcagaagat 5100
 gagccagaaa aagaaagggt agggcaggtc ctggaggaca tgagtggctg 5150
 tttgggcttt atccagcagt gggggagcct tggcaggctt gtggcttaga 5200
 taggtgcttt agaaagccca ccagcagttg ctgggccacc ccgctggctg 5250
 ggtcctgttc taaggcagga aatacaagca tgagcaggaa aagaccccct 5300
 caaggctcac gtccctagtgg ggagacaaga aacacagatg ggcaatataa 5350
 cacgatgtct ggttccagta agtgcagtga agaacaagcg aggctggatg 5400
 caggagtgat tgggaggggc tttgtaaggg gaggtcgggg gaagcctgtc 5450
 tcagaggaca ccagaatgga ggcgaggagc agcacgtggc agtcacatgg 5500
 caggccgtta gggcagaggg agctgggcag ggcacagcag ggcaggagtg 5550
 tgtttgatgt gtccctgggaa ccgccctgag gccgtcgtgt ggctggagtg 5600
 ctgcagggtg caaggaaatt gtaggagatg tctcctgagt gtgatggaat 5650
 ataaccagat ttccagaagg aactgacatg atctgactta aaaaggtcag 5700
 tgtgcgaaat ggcttgacag ggacaggagt gggagcaggg agataggaga 5750
 caatgtgtac caggacagca gaaagacatc ccgggtagcc tggaacaggg 5800
 agacggtgtg gagatggtgg cagtccgata atgagagccg tagggcaagg 5850
 ccagcaggat cctagagtga gacgggaggt aaagtcaccg ggacttggtg 5900
 tctccacgtc aggggcaggg gaaagggaga ggacaagggg gacccgggag 5950
 gttaaagatg ggaccggggc cagacgcagt ggctcatgcc tgtaatccta 6000
 gcactttggg aggctgaggg gggcggatag cttgaggtca ggagtttgaa 6050
 accagcctgg ccaacatggg gaaaccccgt ctctactaaa atatacaaaa 6100
 attagcctgg cgtggtgggt catgcctgca gtcccagcta ttcaggaggc 6150
 tgaggcaaca agaatcgctt gaacctggga ggcggagggt gcagtgagcc 6200

gagatcgcgc catagcactc cagccttagc ctgggcgaca gagcgagacc 6250
acatc 6255

<210> 18
<211> 2465
<212> DNA
<213> Homo sapien

<400> 18
gagcagcgcg gcctgacggg accaaggcgg cgggagtctg cggtcgttcc 50
ctcggctgtg gaccgggcg cgcgcacgcg gtgcagggtg acatggcgga 100
tgcggaagta attattttgc caaagaaaca taagaagaaa aaggagcgga 150
agtcattgcc agaagaagat gtagccgaaa tacaacacgc tgaagaattt 200
cttatcaaac ctgaatccaa agttgctaag ttggacacgt ctcaagtggc 250
ccttttgcta aagaattttg ataagctgaa tgtaaggaca acacactata 300
cacctcttgc atgtggttca aatcctctga agagagagat tggggactat 350
atcaggacag gtttcattaa tcttgacaag ccctctaacc cctcttccca 400
tgagggtgta gcctggattc gacggatact tcgggtggag aagacagggc 450
acagtggtag tctggatccc aaggtagctg gttgtttaat cgtgtgcata 500
gaacgagcca ctgcgttggg gaagtcacaa cagagtgcag gcaaagagta 550
tgtggggatt gtccggctgc acaatgctat tgaagggggg acccagcttt 600
ctagggccct agaaactctg acaggtgcct tattccagcg acccccactt 650
attgctgcag taaagaggca gctccgagtg aggaccatct acgagagcaa 700
aatgattgaa tacgatcctg aaagaagatt aggaatcttt tgggtgagtt 750
gtgaggctgg cacctacatt cggacattat gtgtgcacct tggtttgta 800
ttgggagttg gtggtcagat gcaggagctt cggaggggtc gttctggagt 850
catgagtga aaggaccaca tggtgacaat gcatgatgtg cttgatgctc 900
agtggctgta tgataaccac aaggatgaga gttacctgcg gcgagttggt 950
taccctttgg aaaagctggt gacatctcat aaacggctgg ttatgaaaga 1000
cagtgcagta aatgccatct gctatggggc caagattatg cttccaggtg 1050
ttcttcgata tgaggacggc attgaggtca atcaggagat tgtgggttatc 1100
accaccaaag gagaagcaat ctgcatggct attgcattaa tgaccacagc 1150
ggtcacatct acctgcgacc atgggtatagt agccaagatc aagagagtga 1200

tcatggagag agacacttac cctcgggaagt ggggttttagg tccaaaggca 1250
 agtcagaaga agctgatgat caagcagggc cttctggaca agcatgggaa 1300
 gcccacagac agcacacctg ccacctggaa gcaggagtat gttgactaca 1350
 gtgagtctgc caaaaaagag gtggttgctg aagtggtaaa agccccgcag 1400
 gtagttgccg aagcagcaaa aactgcgaag cggaagcgag agagtgagag 1450
 tgaaagtgac gagactcctc cagcagctcc tcagttgatc aagaaggaaa 1500
 agaagaagag taagaaggac aagaaggcca aagctggtct ggagagcggg 1550
 gccgagcctg gagatgggga cagtataacc accaagaaga agaagaagaa 1600
 gaagaaagca aaagaggtag aattggtttc tgagtagtga aggccacttg 1650
 aagctggagg agaaactaaa gccttattga gaaaacatgt tatagatcct 1700
 tttgttgctg agagagtggg acataggtcc tagacagggg gaagagttct 1750
 ggcacatfff agctgctact ttgagacctc ggtgatgtta cctggtgtgg 1800
 tcatcccatc ttgtcctggt ttaaggatat ggggtggtgaa agatgaaaga 1850
 ggcagagttt atcccaatga cttctctggt tgagttggga agcctcacct 1900
 tcagaccag taactgtccg cagctgtctg ctagtgggtg tcttaacatc 1950
 gtagtcctag tttgcatttt ttaaattccc tctgtttaaa aggtttgtaa 2000
 aacaaaaaca aaaaactaag tctgctcagt gaaatgctgt agaaccctaa 2050
 ataagtggta gaagagtgtc actgaatttt gtctctgaat tcagtataac 2100
 tgagttttgt ccatgctggg gtctgggtta taggcctgat gggcctggta 2150
 gttttccatc ttgttctggc ctagaggtca gtcttttgca ctctctcaaa 2200
 gcttgtgtac agtgtccacc taaatccatc tgactacttg ttctgtgcc 2250
 ctcttgtttt aggctcgtt tacttttaaa aaatgaaatt gttcattgct 2300
 gggagaagaa tgttgtaatt tttacttatt aaagtcaact tgttaagttt 2350
 tttatgtatt cctgttgggt tttcttgttg atctcatgct agcagagcaa 2400
 aaattgtaaa atattttgat taaaaatcta gggaccttta tgtcctatft 2450
 ggaattcgat atcaa 2465

<210> 19
 <211> 2289
 <212> DNA
 <213> Homo sapien

 <400> 19

ggcacgaggc tacaaagcag gaaagtatgc ttgggagagg ccaagtgagt 50
 ggggaatcag cccaaagcca ggcgtccagg gtctccctca cctgaagctg 100
 actttttccc caccttggac agagggcgagg agatgccatc cccactgaac 150
 ccagtgcctt caccagccat attagctccc actcaccccc cgtcgtggaa 200
 gcctcgcccg tcacacctgc agggccgggg cgtgcatggc ctcagggatg 250
 gcctgttcag ctgctgggtg actcgggtcc aggtgcctca ccacctgctg 300
 agctctgtgt gatttctgga cgcttctgct cgttgccctt gggctcagtg 350
 aagagtctgg agtttatctg gagtgggtg gccggttctt ggtgggatct 400
 gagcaggaca gcgtctggct ccttccctcg gctcatggcc ctcagaatct 450
 gcgtcacata caccocagct ctcccgatag gtctctgcac tcgctgttgc 500
 ctctgcctgg aacagtctcc ctctgggtg cattgtctcc gtgggtgtgc 550
 ctctctgacc ttccacctcc accagtctgt ccccttggg gacagggact 600
 cgttgcctcat gttcaccocg caggtcggac acttcgtgga gggctccaaa 650
 gctggcagat cccggggccg cctctgtctc tcccaggccc tgcgtgttgc 700
 ggtgagagga gcatttgtgt ctctgtggtt tgctgctgga gctggtgacc 750
 gggagagaaa caaggagac aagggtgcc agacaggtgc ggggctcagc 800
 caggaggcag aagacgtgga cgtgtcccg gccaggagg tcacagatgc 850
 accacaaggc actctgtgtg gcactgggaa caggaattct gggagtcagt 900
 ctgcaagggc ggtgggcgtt gctcacctgg gagaagcctt tagagtgggc 950
 gttgagcagg ccattagctc gtgccctgag gaggtgcatg ggcggcatgg 1000
 gctctccatg gaaattatgt gggcgccaat ggatgtggct ctgcgtcac 1050
 ctgggcgagg acttctggcc ggtgccgggg cactctgcgt gacctggca 1100
 gaatcgagct gccctgacta tgaaagggga agaagagcat gcctgacct 1150
 ccaccggcac cccaccctc actgctccac ctggggcctg cctctgcggg 1200
 tggctgggtc ctggctgact gttgtgactg ttgaggccct ggggggggtg 1250
 cgcagggag ttaggaggac tggccaggtg gggccacta tgcaccacc 1300
 cccagtgtca ggtgcttctc ctctctctcc ccaccacctc ctctctctcc 1350
 tcctcatcat catctcact tgttgaggac gtctgtgtg ccaagtgggt 1400
 tatatgccca gcctcattta atctcagaa tgactccatg aggtagctac 1450

taaaaccccc cacttaacag atgaggaaac tgaggcctag agaagctcaa 1500
 taagttgcct aagttccaag tttcctctcc caactctcct accctctcct 1550
 cttccttctc ctttctccca ttcttccctg cctcttccct aactagacaa 1600
 ttttttattg agtgtctccc aggtgcaggc atgagccagg tgctgggaaa 1650
 atcatgataa cccagctcct tctggtcatt ttctcagctg gttagaggct 1700
 gggaggacac gcaagttcag ctccagccga ctggggcatt ggtggtagcc 1750
 cctggagaca ttgtgcaatg gggctacgag gctgcatctg gctccaggga 1800
 agcgtgttgc aatccatgag tgatgtctgc catgcgtaca ggcatggaga 1850
 gtgaggcgcc tgtactgtct ttctgtagac cctagactgg tggggcctct 1900
 gaaatgcac cagacactgt gctgggtgtg ttgcatggcc ctcccaacca 1950
 attcagtatt tttctcccca ttttccaggg agaaatctaa ggcgtcagaa 2000
 tgtaagggtc ttattggaac ccaggctcca gggtccttgg ttttctgtga 2050
 catcatgctg caggaccctg tttctctctt tgctttggct gctggggagc 2100
 tcagaaggga gctttaggct tgctctcagt caccacatta gctcaggggt 2150
 ttgggcattt ttgtgcctgt ctcttttggg ctctgtctcc tccctgctgt 2200
 gcttctgag gagcaggccg gatgtaagtt atcaactata aataaaacca 2250
 agacttccgt tctggctctc aaaaaaaaaa aaaaaaaaaa 2289

<210> 20

<211> 2835

<212> DNA

<213> Homo sapien

<400> 20

gtacagaagc aaaatcaaac ctgctatttc agcactcctg tttttaactt 50
 ggtgtcttta gtgettggat tgggtgggatg tttcggaatg ggcattgtcg 100
 ccaattttca ggagtttagct gtgccagtgg ttcatgacgg gggcgctctt 150
 ttggcctttg tctgtggtgt cgtgtacacg ctctacagt ccatcatctc 200
 ttacaaatca tgtccccagt ggaacagtct ctcgacatgc cacatacgga 250
 tggtcacctc tgccgtttct tgcgcagctg tcatcccat gattgtctgt 300
 gcttcactaa tttccataac caagctggag tggaatccaa gagaaaagga 350
 ttatgtatat cacgtagtga gtgcgatctg tgaatggaca gtggcctttg 400
 gttttatttt ctacttcta actttcatcc aagatttcca gagtgtcacc 450

ctaaggatat ccacagaaat caatggtgat atttgaagaa agaagaattc 500
 agtctcactc agtgaatgtc gcaggccatt tctaaaagtg ctacagagga 550
 cagacagggt tttgaggcca ccctgattat tgggatgcat ctgcagcaca 600
 tccaggactt gaatttcatt acgagttcct aatagttgta tttctaaaga 650
 tgtgtttcct agagaatgta cagccttatg aactgtagt gatgttttta 700
 taattttcta agtagatttt tttatattaa caaattcata tacagaaaaa 750
 ataagggtgtt acaaaaaatg gagagctctt atttttgtac agattctgtc 800
 gttttttttt atttgtgtga gatttatgga aatacactaa atgagtaatt 850
 caggttcagt acatttatta caaagtgaaa tcaggggata ttcatttgta 900
 aattttattc ttagtgaatg aactgtataa ttttttttat caggagagca 950
 cttataaaat tcaatttata aagatcatat acccaaata taaagattta 1000
 gttgatacat taacactaag atactctgat ttttagcgaa ctaaacaag 1050
 tgcttctact gagaggcctt tataccacca tgtacagtaa ctctaagtga 1100
 atacggaaga ccttggtttt gaaattctgc caccttggtt ctccctgctc 1150
 atgaggctgc accttttgtt cttgctgcta attgcccatt cgtagtgggt 1200
 gtaatgccag gtggaatggt ttcaacaagt caggtgaaaa ccatccttta 1250
 ttgttgctgg cacaacttga tatatagtct gactcagaac tgaagctcac 1300
 atctcaaatt catttcatgc cagtaaagt ggcaaagaga agaaaggccc 1350
 aagagcgaga caagaagaat ggagaagggg gcagccaaga agaacttctg 1400
 ggttcagggt actgtttatt tgctccttct cttcatgctt gtggctggat 1450
 gtcccacaac actataagaa atataagtca agccctttgt gttaagcaag 1500
 aactacagac tccatctttt cacccaaata atgaatgacc aataaaaagc 1550
 aagttattcc agaggaagaa gcagcccttg aaatgttaag gcttaggctt 1600
 gaaaggtgaa gagcaggaat tctctctttc aaatcctaga gcataaaccc 1650
 atgtgtggcc aagtgagatc agccctcaag ggcacatgcc aagggcagag 1700
 cagcccatgt agacagcttc ggagggcatg ggggtgtagg gagttcgggg 1750
 tagctcctca ttaactattt gttgggtgag taaaggggtg aggctcagt 1800
 gcaggtagct ctgcaatgac aagctgcctc ccctctatgt gtttagcata 1850
 tgttattaga acatgtccga caccctacc gctgccattt gggcccttta 1900

ataaagccaa gtagagaaat ctggcaataa aaggcaaattg taagcatgct 1950
 ttctttaaga cgcatacataa atggttttct ttaagtgaat ggaagagttt 2000
 gacagagata cacctttgta agaaaacatt aagaatgctg gctggctgtg 2050
 gtggctcaca cctgtattcc cagcactttg ggaggcctag gcaggaggat 2100
 tgcttgagcc tgggacttcg agaccagact gggaaacatg gcaaaatccc 2150
 atctctacaa caaaaatata aaaattagcc aagtgcggtg gtgtgcctgt 2200
 agtcctagtt acttgggagg ctgagggtggg agaatacact gagcccagga 2250
 ggtggaggct gcagtgaacc atgccaatgc actccagtct gggcaacaga 2300
 gtgagaccct gtctcaaaaa taaataaata aataaatgaa taaagagaat 2350
 gctaatacatt tctgggttca ctgcgactca ctgtagtgct ggggatcccc 2400
 cttgtaacac tggaactgaa aggcagtgat gaaagctatg tcaagcattc 2450
 attattctga agaggaggag aaatgccaca tacctttccc atgggacctg 2500
 tgggtggaatg aatccatact tctgcctcac ttcgagcaga cttttgttct 2550
 cggcgtcct cagcatggag tttcatgctt cattttcaca tctctctgca 2600
 caattagatt gggagctcct tgagggcaga gtacgtgcct taatctttat 2650
 ctttgtaatg ccacaatgaa cagagtgcct cctggtacac tgtaggagct 2700
 taagaaatac tcaactgaatg catgaatgaa tgaatgaaca aatgaaggaa 2750
 tgactaagga tgttttagt gctataatat agaatgggat ttactctgct 2800
 ttaccagtta gtttcataat aaacaaatag tctgt 2835

<210> 21
 <211> 3178
 <212> DNA
 <213> Homo sapien

<400> 21
 ggcaccgatt cggggcctgc cgggacttcg ccgcacgctg cagaacctcg 50
 cccagcgcgc accatgcgcc ggcagctcag cgcggcggcc gcgctcttcg 100
 cgtccctggc cgtaattttg cagcatggca gtcaaatgag agcaaaagca 150
 tttccagaaa ccagagatta ttctcaacct actgcagcag caacagtaca 200
 ggacataaaa aaacctgtcc agcaaccagc taagcaagca cctcaccaaa 250
 ctttagcagc aagattcatg gatggtcata tcacctttca aacagcggcc 300
 acagtaaaaa ttccaacaac taccocagca actacaaaaa aactgcaac 350

caccagccca attacctaca ccctgggtcac aacccaggcc acacccaaca 400
actcacacac agctcctcca gttactgaag ttacagtcgg ccctagctta 450
gccccttatt cactgccacc caccatcacc ccaccagctc atacagctgg 500
aaccagttca tcaaccgtca gccacacaac tgggaacacc actcaacca 550
gtaaccagac cacccttcca gcaactttat cgatagcact gcacaaaagc 600
acaaccggtc agaagcctga tcaaccacc catgccccag gaacaacggc 650
agctgccac aataccacc gcacagctgc acctgcctcc acggttcctg 700
ggcccaccct tgcacctcag ccacgtcag tcaagactgg aatttatcag 750
gttctaaacg gaagcagact ctgtataaaa gcagagatgg ggatacagct 800
gattgttcaa gacaaggagt cggttttttc acctcggaga tacttcaaca 850
tcgaccccaa cgcaacgcaa gcctctggga actgtggcac ccgaaaatcc 900
aaccttctgt tgaattttca gggcggattt gtgaatctca catttaccaa 950
ggatgaagaa tcatattata tcagtgaagt gggagcctat ttgaccgtct 1000
cagatccaga gacagtttac caaggaatca aacatgcggt ggtgatgttc 1050
cagacagcag tcgggcattc cttcaagtgc gtgagtgaac agagcctcca 1100
gttgtcagcc cacctgcagg tgaacaacaac cgatgtccaa cttcaagcct 1150
ttgattttga agatgaccac tttggaaatg tggatgagtg ctctctgac 1200
tacacaattg tgcttctgt gattggggcc atcgtggttg gtctctgcct 1250
tatgggtatg ggtgtctata aaatccgcct aagggtgtcaa tcatctggat 1300
accagagaat ctaattgttg cccgggggga atgaaaataa tggaatttag 1350
agaactcttt catcccttcc aggatggatg ttgggaaatt ccctcagagt 1400
gtgggtcctt caaacaatgt aaaccacat cttctattca aatgaagtga 1450
gtcatgtgtg atttaagttc aggcagcaca tcaatttcta aatacttttt 1500
gtttatttta tgaaagatat agtgagctgt ttattttcta gtttccttta 1550
gaatatttta gccactcaaa gtcaacattt gagatatgtt gaattaacat 1600
aatatatgta aagtagaata agccttcaaa ttataaacca aggttcaatt 1650
gtaactaata ctactgtgtg tgcattgaag attttatttt acccttgatc 1700
ttaacaaagc ctttgcttg ttatcaaatg gactttcagt gcttttacta 1750
tctgtgtttt atggtttcat gtaacatata tattcctggg gtagcactta 1800

actccttttc cactttaaat ttgtttttgt tttttgagac ggagtttcac 1850
 tcttgtcacc caggctggag tacagtggca cgatctcggc ttatggcaac 1900
 ctccgcctcc cgggttcaag tgattctcct gcttcagctt cccgagtagc 1950
 tgggattaca ggcacacact accacgcctg gctaattttt gtatttttat 2000
 tatagacggg tttcaccatg ttggccagac tggctctgaa ctcttgacct 2050
 caggtgatcc acccacctca gcctcccaa gtgctgggat tacaggcatg 2100
 agccattgcg cccggcctta aatgtttttt ttaatcatca aaaagaacaa 2150
 catatctcag gttgtctaag tgtttttatg taaaaccaac aaaaagaaca 2200
 aatcagctta tattttttat cttgatgact cctgctccag aattgctaga 2250
 ctaagaatta ggtggctaca gatggtagaa ctaaacaata agcaagagac 2300
 aataataatg gcccttaatt attaacaaag tgccagagtc taggctaagc 2350
 actttatcta tatctcattt cattctcaca acttataagt gaatgagtaa 2400
 actgagactt aagggaaactg aatcacttaa atgtcacctg gctaactgat 2450
 ggcagagcca gagcttgaat tcatgttggt ctgacatcaa ggtctttggt 2500
 cttctcccta caccaagtta cctacaagaa caatgacacc aactctgcc 2550
 tgaaggctca cacctcatc cagcatacgc tcaccttaca gggaaatggg 2600
 tttatccagg atcatgagac attagggtag atgaaaggag agctttgcag 2650
 ataacaaaat agcctatcct taataaatcc tccactctct ggaaggagac 2700
 tgaggggctt tgtaaaacat tagtcagttg ctcatTTTTTA tgggattgct 2750
 tagctgggct gtaaagatga aggcacaaa taaactcaaa gtatttttaa 2800
 atttttttga taatagagaa acttogetaa ccaactgttc tttcttgagt 2850
 gtatagcccc atcttgtggt aacttgctgc ttctgcactt catatccata 2900
 tttcctattg ttcactttat tctgtagagc agcctgcaa gaattttatt 2950
 tctgctgttt tttttgctgc taaagaaagg aactaagtca ggatgttaac 3000
 agaaaagtcc acataaccct agaattotta gtcaaggaat aattcaagtc 3050
 agcctagaga ccatgttgac tttcctcatg tgtttcctta tgactcagta 3100
 agttggcaag gtctgactt tagtcttaat aaaacattga attgtagtaa 3150
 aggtttttgc aataaaaact tactttgg 3178

<210> 22

<211> 1741

<212> DNA

<213> Homo sapien

<400> 22

cagaggtagc ctgaaagaag caggaactcc aggatcccaa accagagcag 50
accctatagt aaagtatttt tacatctttt cctttcccca gaagagatcc 100
ctaacctatt gttttattga cagccttgct gttagaggct ctttcccaga 150
agttggacga agaggctcag gcgttgctgt ttcttgtctt ccaagtcaag 200
tggttactct ggtaatggat tgctctctc cgagctttca ccctggtgag 250
actgtccaga tctagtctgt aaaccagct tagaagcact gttgtaaaaa 300
tgactgaaga gcccatcaag gagatcctgg gagccccaaa ggctcacatg 350
gcagcgacga tggagaagag cccaagagt gaagttgtga tcaccacagt 400
ccctctggtc agtgagattc agttgatggc tgctacaggg ggtaccgagc 450
tctctgcta ccgctgcac atcccccttg ctgtggttgt cttcatcgcc 500
ggcatcgtgg tcaccgcggt ggcttacagc ttcaattccc atgggtctat 550
tatctccatc tttggcctgg ttgttctgtc atctggactt tttttactag 600
cctccagtgc cttgtgctgg aaagtgagac aaaggagcaa gaaagccaag 650
agacgggaga gtcaaacagc tctcgtggca aatcagagaa gcttgtttgc 700
ttgagactga atacgaccaa atggggccatt gggcctggaa aacgtgctct 750
gactttgtca cccaattcac ccagaaccat ggtgggagag aacagacttg 800
gcgttggagc agactggaag aatgggggtg ggagggtgga ggggcttctc 850
ctttgtgagg aatgactcat gtcttcttta acgacaaact taaccctaag 900
ggctacttct gagactgaaa aatcagcttt ctatttacat gaaacacttt 950
gggggtcatg ggagtgcaca gcattagaca gtatttggtt caccctgtaa 1000
agtagccaag aaaagatgag aaaaatcaag ataggcctgg cacactagac 1050
atttgctcc aaaagaaata acctacagtc ttaagatgta tcataaaaat 1100
gttctgcaa ggatctaaat taccttgggt ttcgcatatg tctatgaaat 1150
tctgtgataa tttttttcaa tacattgatt cactggcgtc tgttttcatt 1200
ttatactttt aataactcat cactggtggt actttatctt gaaaagtaat 1250
attttttata ttttaacatt ggacagtgtt agccagttgt aatgatgtat 1300
cagaagtaaa gaaaaacca ttaaagttat agctaataga tgctggtggg 1350

ggtaaatta atagtaaaat aatccaatat agcacttttg atgattttta 1400
 tataaaagtc aactgtacat ttcattcaga ataataaata cttattgctg 1450
 ctaaaacttc ttaaatgggt gtttctgcta tagttatttc tattgcagtt 1500
 ccaaattgcc atcttccctt gtctcatttg caagttctca attgtatttc 1550
 tctcaaattg acaggttctt tctttactgg aggatttttg tttttatcat 1600
 attgggtttt cattacttct gaatagtctt aattacgttt actaaattct 1650
 aaaggatttc tgtgctatta taattaggaa atcaacgtct ttggtcagga 1700
 actttataat gtgctattaa atgtatatta catttttgtg g 1741

<210> 23
 <211> 1395
 <212> DNA
 <213> Homo sapien

<400> 23
 atgctgtcac tgctccacgc atcaacgctg gcagtccttg gggctctgtg 50
 tgtatatggg gcaggtcacc tagagcaacc tcaaatttcc agtactaaaa 100
 cgctgtcaaa aacagcccg cgtggaatgtg tgggtgtctgg aataacaatt 150
 tctgcaacat ctgtatatgg gtatcgagag agacctgggtg aagtcataca 200
 gttcctgggtg tccatttcat atgacggcac tgtcagaaag gaatccggca 250
 ttccgtcagg caaatttgag gtggatagga tacctgaaac gtctacatcc 300
 actctcacca ttcacaatgt agagaaacag gacatagcta cctactactg 350
 tgccttgtgg gaggtgcggc tagccaacca agagttgggc aaaaaaatca 400
 aggtatttgg tcccggaaca aagcttatca ttacagataa acaacttgat 450
 gcagatgttt cccccaagcc cactattttt ctctcttcaa ttgctgaaac 500
 aaagctccag aaggctggaa catacctttg tcttcttgag aaatttttcc 550
 ctgatgttat taagatacat tggcaagaaa agaagagcaa cacgattctg 600
 ggatcccagg aggggaacac catgaagact aacgacacat acatgaaatt 650
 tagctgggta acggtgccag aaaagtcact ggacaaagaa cacagatgta 700
 tcgtcagaca tgagaataat aaaaacggag ttgatcaaga aattatcttt 750
 cctccaataa agacagatgt catcacaatg gatcccaaag acaattgttc 800
 aaaagatgca aatgatacac tactgctgca gtcacaaac acctctgcat 850
 attacacgta cctcctcctg ctctcaaga gtgtgggtcta ttttgccatc 900

atcacctgct gtctgcttag aagaacggct ttctgctgca atggagagaa 950
 atcataacag acggtggcac aaggaggcca tcttttcctc atcggttatt 1000
 gtccctagaa gcgtcttctg aggatctagt tgggctttct ttctgggttt 1050
 gggccatttc agttctcatg tgtgtactat tctatcatta ttgtataacg 1100
 gttttcaaac cagtgggcac acagagaacc tctctctgta ataacaatga 1150
 ggaatagcca cggcgatctc cagcaccaat ctctccatgt tttccacagc 1200
 tcctccagcc aacccaaata gcgcctgcta tagtgtagac atcctgcggc 1250
 ttctagcctt gtccctctct tagtgttctt taatcagata actgcctgga 1300
 agcctttcat ttacacgcc ctgaagcagt cttctttgct agttgaatta 1350
 tgtggtgtgt ttttccgtaa taagcaaat aaatttaaaa aaatg 1395

<210> 24
 <211> 3282
 <212> DNA
 <213> Homo sapien

<400> 24
 gggacagggc tgaggatgag gagaaccctg gggacccaga agaccgtgcc 50
 ttgcccggaa gtccctgctg taggcctgaa ggacttgccc taacagagcc 100
 tcaacaacta cctggtgatt cctacttcag ccccttggtg tgagcagctt 150
 ctcaacatga actacagcct ccacttggcc ttogtgtgtc tgagtctctt 200
 cactgagagg atgtgcatcc aggggagtca gttcaacgtc gaggtcggca 250
 gaagtgacaa gctttccctg cctggctttg agaacctcac agcaggatat 300
 aacaaatttc tcaggcccaa ttttggtgga gaaccctac agatagcgct 350
 gactctggac attgcaagta tctctagcat ttcagagagt aacatggact 400
 acacagccac catatacctc cgacagcgct ggatggacca gcggctggtg 450
 tttgaaggca acaagagctt cactctggat gccgcctcg tggagtctct 500
 ctgggtgcca gatacttaca ttgtggagtc caagaagtc ttcctccatg 550
 aagtcactgt gggaaacagg ctcatccgcc tcttctccaa tggcacggtc 600
 ctgtatgccc tcagaatcac gacaactgtt gcatgtaaca tggatctgtc 650
 taaatacccc atggacacac agacatgcaa gttgcagctg gaaagctggg 700
 gctatgatgg aatgatgtg gagttcacct ggctgagagg gaacgactct 750
 gtgcgtggac tggaacacct gcggcttgct cagtacacca tagagcggta 800

tttcacctta gtcaccagat cgcagcagga gacaggaaat tacactagat 850
 tgggtcttaca gtttgagctt cggaggaatg ttctgtatTTT catttttggaa 900
 acctacgttc cttccacttt cctgggtggg ttgtcctggg tttcattttg 950
 gatctctctc gattcagtcc ctgcaagaac ctgcattgga gtgacgaccg 1000
 tgttatcaat gaccacactg atgatcgggt cccgcacttc tcttcccaac 1050
 accaactgct tcatcaaggc catcgatgtg tacctgggga tctgcttttag 1100
 ctttgtgttt ggggccttgc tagaatatgc agttgctcac tacagttcct 1150
 tacagcagat ggcagccaaa gataggggga caacaaagga agtagaagaa 1200
 gtcagtatta ctaatatcat caacagctcc atctccagct ttaaaccggaa 1250
 gatcagcttt gccagcattg aaatttccag cgacaacgtt gactacagtg 1300
 acttgacaat gaaaaccagc gacaagttca agtttgtctt ccgagaaaag 1350
 atgggcagga ttgttgatta tttcacaatt caaaacccca gtaatgttga 1400
 tcaactattcc aaactactgt ttcccttgat ttttatgcta gccaatgtat 1450
 tttactgggc atactacatg tatttttgag tcaatgttaa atttcttgca 1500
 tgccataggt cttcaacagg acaagataat gatgtaaatg gtatttttagg 1550
 ccaagtgtgc acccaatcc aatggtgcta caagtgactg aaataatatt 1600
 tgagtctttc tgctcaaaga atgaagctcc aaccattgtt ctaagctgtg 1650
 tagaagtctc agcattatag gatcttgtaa tagaaacatc agtccattcc 1700
 tctttcatct taatcaagga cattcccatg gagcccaaga ttacaaatgt 1750
 actcagggct gtttattcgg tggtccctg gtttgcattt acctcatata 1800
 aagaatggga aggagaccat tgggtaacct tcaagtgtca gaagttgttt 1850
 ctaaagtaac tatacatgtt ttttactaaa tctctgcagt gcttataaaa 1900
 tacattgttg cctattttagg gagtaacatt ttctagtttt tgtttctggg 1950
 taaaatgaaa tatgggctta tgtcaattca ttggaagtca atgcactaac 2000
 tcaataccaa gatgagtttt taaataatga atattattta ataccacaac 2050
 agaattatcc ccaatttcca ataagtccta tcattgaaaa ttcaaataata 2100
 agtgaagaaa aaattagtag atcaacaatc taaacaaatc cctcggttct 2150
 aagatacaat ggattcccca tactggaagg actctgaggc tttattcccc 2200
 cactatgcat atcttatcat tttattatta tacacacatc catcctaaac 2250

tataactaaag cccttttccc atgcatggat ggaaatggaa gatttttttg 2300
 taacttggtc tagaagtctt aatatgggct gttgccatga aggcttgacg 2350
 aattgagtcc attttctagc tgcctttatt cacatagtga tggggtacta 2400
 aaagtactgg gttgactcag agagtgcgtg tcattctgtc attgctgcta 2450
 ctctaactact gagcaactact ctcccagtgg cagatcccct gtatcattcc 2500
 aagaggagca ttcacccctt tgctctaata atcaggaatg atgcttatta 2550
 gaaaacaaac tgcttgaccc aggaacaagt ggcttagctt aagtaaacct 2600
 ggctttgctc agatccctga tccttcacgc tggctgctc tgagtggctt 2650
 atcccgcatg agcaggagcg tgctggccct gagtactgaa ctttctgagt 2700
 aacaatgaga cacgttacag aacctatggt cagggtgcgg gtgagctgcc 2750
 ctctccaaat ccagccagag atgcacattc ctcgccagc ctccagccaac 2800
 agtaccacaaa gtgatttttg agtgtgccag ggtaaaggct tccagttcag 2850
 cctcagttat tttagacaat ctgccatct ttaatttctt agcttctgt 2900
 tctaataaat gcacggcttt acctttctg tcagaaataa accaaggctc 2950
 taaaagatga tttcccttct gtaactccct agagccacag gttctcattc 3000
 cttttcccat tatacttctc acaattcagt ttctatgagt ttgatcacct 3050
 gattttttta acaaaatatt tctaacggga atgggtggga gtgctgggtga 3100
 aaagagatga aatgtggttg tatgagccaa tcatatttgt gattttttta 3150
 aaaaagttaa aaaggaaata tctgttctga aacccccactt aagcattgtt 3200
 tttatataaa aacaatgata aagatgtgaa ctgtgaaata aatataccat 3250
 attagctacc caccaaaaaa aaaaaaaaaa aa 3282

<210> 25

<211> 4675

<212> DNA

<213> Homo sapien

<400> 25

tgctgtcagg gcgctcaagc tgccggggaa gaagagccca gacctagggg 50
 agtatgatcc acttaccag gctgacagt atgagagcga agacgatctg 100
 gtgcttaacc tgcagaagaa tggaggggtc aaaaatggga agagtccctt 150
 gggagaagcg ccagaaccgc actcagatgc tgagggtgca gaggctgcaa 200
 agccacatct ttcagaagtc accacggagg gctacccctc agaaccctt 250

gggggcctgg aacagaaggc ggcctcctcc ctggtgtcat atgtgcgcac 300
 gtctgtcttc ctgctgactt tggggatctc gatgatcctg gtgctcctgt 350
 gtgctttcct gatccctgt cctcccagag atctgcacag cacctggagc 400
 cgccacttgg gctcccaggg aggtggggac ctgtctccat tgggaattggc 450
 tgatgtgaat ggagatggcc tgcgtgatgt gcttctctcc tttgtgatgt 500
 caaggaacgg gagtgcagta ggtgtctcaa gaccagctgc taatcttgtg 550
 tgcccttcgg ggatgaatgg cagcacactg tggcttagtc ttctccctga 600
 ggaaggctcga gatatcacat gtttggagct gatgccagga agcttggctg 650
 aaaccatctg ccttgtgaca gggacacaca agatgctcag cgcattcaat 700
 gcaacgtcag ggaaagccat ttggacttta aacccaaact acttgtccaa 750
 cggtaacctg gctgccccag ttgtgggtact gccagacttg gatgaagacg 800
 gtgttcogaga ccttgtgggt ctggccattg gggaattgca gccagatctg 850
 tgctttctgc tgggtgtctgg ccggaccgga aatccagtgg gtcgacctgt 900
 gaagtacaac atcgttggag ttgggaatct gattggctct caggtttaca 950
 tcaccacaaa tggggctgtc tacatcctgt ttggctttgg aaatatacaa 1000
 gctgtcgcac tgccggacat ttttgttcag gcccaaatc gagacagctc 1050
 accaccttct ctgcagatag aagagccaga atgggaaaag cgaagatcca 1100
 tcaacctgtc tgagctcatt gatgtttaca gtgatgggtg tgaactactc 1150
 cagatgggtga aggcaccaga ttccaactgc agcaaccttc tgattacaac 1200
 cagacaaagc cttgtgctgc ttccgggggca aaatctgaca ccttactggg 1250
 cattgagact tcaaggcctg cgcagccagc ctactcctgg atatttcact 1300
 gatgatcaga cattagattt ccttctgcag atacaggatg gagttgggat 1350
 gaaaaagatg atggttgtgg atggtgactc tggctccatt gtttggagtt 1400
 accgtgctcc gtgtcacatg aaagaaacgc cagccacctc agcagttact 1450
 tcagaccaga agtctgtctt cctcttctgg gccgaagggc tgtcagctgc 1500
 atctcccaat tccgatatca tcttaggaac tgagccgccc agccttcacc 1550
 acctttacct cctgcctcct gcgttccccct ccctccttct ggatctggcc 1600
 aacaccaccg gcacagtgc ggcttcagag gttggaatta acgacctctg 1650
 gaaagatgcc ttttatgtta ccaggacaac agggccaagc tccgaaggcc 1700

atccagcagc cctggtgggc agcaagctta gtctacggtg ggcaactaatg 1750
gagggccaga tggctcagct acaggagtcc acccccaaaa ttggccgtgg 1800
ggagctgcga agattttctct ctaggataaa gtttgttgaa gctccctacg 1850
agatctaate tgatggaate ttcagttgca gaagaagtga acagagtgga 1900
taccctctct actctcctgt cactgtaaaa tcagttctat ggagagaaga 1950
cttcttcgtc ctcatctacc acctccctga tggttgcaaa ggcttgggaa 2000
ggcatgttg agtccttgac ggcagcatga tctatctggc tggggcatct 2050
tacctacctt ttcagtcctt gcattaatcc cctctaggaa ctctgcgtgg 2100
atcgtttgg aatgtgaate tottaagtat ttaatttttt tggatatgtct 2150
aatttatgaa gtcttgctgg gaaagccagt gaagtctatg actaggaaac 2200
atcttggtgt acattgtgct gtgtgtgtgt atattttagt gttgtggtga 2250
agttattttc caggtatgtc ctaagcttca gggatccagt ttcttgctct 2300
tctgaaatat atctggtttg tttggctcatt ttgagacttc cagatgcctt 2350
acctctgatg ttgagggcca cttattttct tcttattctt tccccacctg 2400
taccttggct acttccaaat tgtagacaga atgagaaaga tttatagtgg 2450
aagactgagt tagccatcca agcattttca tctctcttgt tttatatctt 2500
atttccttag attttccatc catgtctatt aagtgaccac aagaataact 2550
atattcctat cacaagggga gcaagaggat gtagtctcag tgacctatct 2600
ctgaccaagt ccacatgttg tggtatatgt ggctctgatg gttctgccag 2650
tcatgatctt ttttctgtgg cgacatcaga agtgtatgtt tgcagtctgt 2700
cttcaactta gaggagaact ggaagtcagg agcctttgat gtccttatcc 2750
tgctgtatgt cttctctgca tctttttcta tagggcacc ccttagctc 2800
ccctcactct gttttctctt ctattcaggg atatgtttct ggactttttc 2850
ttctgctact tgagtcagg atgcaaccat tttgtctgc atctctctt 2900
tctgtagag ctttgaagc attgtatttt gggaaaattc ttctgtaaat 2950
actataactt ttataaatgg ttaagttatt tagaattatc tccagtgtt 3000
acttctcctt tcttctgtat aaatctgcta cttcaattaa gttctcctt 3050
aaacttttag gtcattgttt atatagcaga aaattcaatg ttagcggatg 3100
gaaaactgct tcttgaataa ccttgatagg tcatccctga gtgcacctca 3150

ggttctctct ttacctgggc ttgtatcttt tttttttttt tttttttttt 3200
 tttgagacag agttttgctc ttgtcgccca ggctggagtg cagtggcaca 3250
 atctcggtc actgcaacct tcgcctcctg ggttcaagcg attctccagc 3300
 cttagcctcc caagtagctg ggactacagg tgcccgtac catgcctggc 3350
 taattttttt ttttgtattt ttagtagaga cggggtttca ccatgttggc 3400
 caggctggtc acgaactcct gacctcagat aatccacctg cttctgcctc 3450
 ccaaagtgtc gggattacag gcgtgagcca ccatgcccgg ctgggcttgt 3500
 atcttttagc ttgtgttagt aaaaggattc tagaaaatta tgaagtccag 3550
 attcaaaggg atctctgtta attaccact gacaggcatt atgacctaac 3600
 aggaggttgg tagcagtaga tccaagcatg catgttgcct ggctgtaga 3650
 ttggccttat caggtttctg ggtgcctctg ccttaagatc ctgaaggcaa 3700
 attttgtttc aacagtttgg aagtcactctg tgggtccagc ttgactttgg 3750
 aggaataaga agatacttct agagtatggg aatgattcca gataatttct 3800
 gggatttgaa tctacttgag ttttaagggc tgggacctaa tttggtttag 3850
 tatagaattt gaagaattaa tttataggca gctgaatacc caaaacttgg 3900
 gtggtggtcc tgtggtttgg ctgagctgtc cgggcataac ctggttctct 3950
 gttatgttaa ggctttctgg gaagccagcc actctgcgca ggagtgaaac 4000
 atgaagttgt tttctgagga cctgttttgg tgggattgtt tgggcagagg 4050
 actgtgttta tgcagggcaa atcccagaaa gataagagga agctagagaa 4100
 acttaatgta cctgaattct tcatggtgta tttgcaaact aacttaacat 4150
 agattctttt gactatggta agtttgaatc tctccttgcc aaacaacatt 4200
 ataagtttag ttttcttctt cctcttgag ccggtacaga aaggtgtaag 4250
 tgggtggtga aaattgagga agcttcatct gaccaatgtg ggtgctggtt 4300
 tcttgtgaaa tgtgtcccta agcctccttc tccttgagc cagccacca 4350
 cccaggtgtc taagatagga catgctcctt tctttctcta atcccatcct 4400
 gaggttgccg gcaaagccaa tatgaccact actgagaaat agtaatgact 4450
 tctacaaatg caagggctct accctcctct ttcccttaaa caccctcct 4500
 tttccttaga ccccgttttt gccatcccc aaatgtgtgg tatggtgaaa 4550
 ctaatccct gaatgtgaat tgctatcctt attgcctat taaagaagag 4600

ccagctggta tattgtcagg aagcactatt taaaatgtga actggttatag 4650
agtaaataaaa taaataactct acagg 4675

<210> 26
<211> 3515
<212> DNA
<213> Homo sapien

<400> 26
cgcttagaac tgtgttgagc tctcaccat cagcatgagc aacaaattcc 50
tgggcacctg gaaacttgct tctagcgaga actttgacga ttacatgaaa 100
gctctgggtg tggggtagc caccagaaaa ctgggaaatt tggccaaacc 150
cactgtgatc atcagcaaga aaggagatat tataactata cgaactgaaa 200
gtacctttaa aaatacagaa atctccttca agctaggcca ggaatttgaa 250
gaaaccacag ctgacaatag aaagaccaag agcatcgtaa ccctgcagag 300
aggatcactg aatcaagtgc agagatggga tggcaaagag acaaccataa 350
agagaaagct agtgaatggg aaaatggtag cggaatgtaa aatgaagggc 400
gtggtgtgca ccagaatcta tgagaaggtc tgaaaaatca tttcttcatt 450
gaagtggctt tttatcattt aatgatggaa atcaattgct tccattgaca 500
aaactgaata cactgcaaat atttgttttt gcttttgtct taatatatca 550
gatatgcaaa ggccataact gagaattaat ctaaaagtca gtgttattta 600
aacattttca atgtgcatgc atgtcattat tacatcaaag catatatatt 650
ggccagacac aaacagttga tgatgtcatt caattaacta caaaattcta 700
atctatgttg aactttgtat acttgaaatg ataataaaaa ggatataatt 750
tcttagtaaa atgaaatcaa agtattgatc agggtagcaa actcaaatgc 800
tgacaggggc cagaggagat atggggaagg agcatcagaa atgaggcaag 850
ctaggagaat gggctattat aatgtaaaga attgtagtct cagttaaaag 900
gggtagcctc tactccagcc aacattttta aattaatgga taatttatag 950
acagttaaatt ttatagacag ttaagtaaaa atggataatt tatagacaga 1000
taatttatag acaggtaaatt gtgagttaaa tataactcac atcccactca 1050
agacacaaaa cattttctta atcctagtac atttttttct gtcccttccc 1100
aatcagtgtc cttttctgtt ccaccctac caaaagcaag tagtggtttg 1150
gtttctatca tatagattaa ttttacctgc tcatatgaag ggaattgtac 1200

atcatgcatt cttttctgtt tgcctttttt aaattcagca tcatgttttt 1250
 gtgatacatc cacattgttg catgcagctg tagtttgttt ctttttatta 1300
 ccaagtacta tttcattgta tgaatatatc acagtttatc cattctacta 1350
 ttaagacaat tgagctattt ctaattttcg gctgctatga ataaagctgc 1400
 tacaaatatt tttgtacaag actttttgta aacataggag tccctttatt 1450
 ttaaataaat aactagtcac atcattaggt ccagtaattg ttgacaggca 1500
 ggaacggggg accattgcat tgtgccaag taataataaa actatttcag 1550
 atgtattata tgattgagca aatgagaaaa catgttgatg ttgatgggag 1600
 tcaggatgtt cactatggaa aaacaaatat acaaatatga aatgagggaa 1650
 ggcaagaaag aaccatgtgg aaatggaata gaattggtat aaattcataa 1700
 tttctaaacc atgtatatgt acgtttatat gtattataat tgcatacaca 1750
 tgcctccatg catatatgtg tgtgataata cacatgcatt tatgtgcgtg 1800
 tgtgtataca catgcatata tttactaatc ctatctgcca aaatggctta 1850
 gacacaaaaa cacctcagca gaaatgaata tacctagcac tcagatcttc 1900
 gtgtctaata tagtttgcca ctaaaaggaa ccaaggctac ttggaaaaat 1950
 ggatgattcc aaagcaaggg caaggtagga acaagatgag cttgaaatat 2000
 cttgttatgc cagaaagtaa tgttaaaaaa aaaaaataga ggtatattgc 2050
 caaaacatag agccagcttg aaggggctcc cactggccaa acttgagcca 2100
 atctgagagc aaaataattg agaaaaataa ataacaagat aattgaaaaa 2150
 aaataaaata aattcccaat tccattggga aaaaatagaa atccatgaat 2200
 ccatactgat ataatgatag ataatcgata gataggtaga tgactgacag 2250
 atgatagata gatatataga tagatagata gatagataga tagatagata 2300
 gatagataga gaaatgagaa ggtttctctt ttgcaataga acgtcatgga 2350
 ccagtgttaa atgtgagtgg aaggagttct ggaattggaa aaccatcatt 2400
 tttcaaccat cacagtaa atggctcagg caagaattat caatcaatgc 2450
 taaagctagg gggaaatttc gcttaggagc aggatattag ggtattagtc 2500
 tgggcttaaa gtatctcttc acagattggt gttagtttct ggggaaagaa 2550
 tagtaaccat gcaatggaaa aaaatggaca acctcttgac taggttatca 2600
 aaattaacct caccaataaa ggggtgatgt tcaacatgtg ccttcaaattg 2650

tgacccactg agaaggaaac aacatcactg taacaacaac aaccagaaac 2700
 gacaggggggt tttgactgaa ttcttcaaaa atgtcaatgt catagaagac 2750
 aaagaaaggt tgtggaaatg tttcagatta aatgatagta aaaacacctg 2800
 acaactaaac atagtaagta atactagact ggattctgta ccagaggtaa 2850
 cataagtgtt ccaaaggaca atgttaggtc aactggcaaa ttggaatata 2900
 gacagtcaat cagataagaa gtatactttg attaagtaaa aaaaatccct 2950
 attcttggaa aatacacaat aaagtatttt gaggtaaagg gccataatgt 3000
 atgcaatcta ctctcaaaaa attcagaaac atatatttgt gtgcatttgc 3050
 atgtgcaaca gtacacacaa acatacataa agagagcaat tgataaggca 3100
 aataaggtaa catttaacaa taatctgata cacataaata gagaaagagc 3150
 aattgataaa gtaaatgagg taaaatttaa caataatctg agcaaaaggt 3200
 atatgtgttt tctttgagac agtctgattc ttgcaactta ttctgtaagt 3250
 tggaaacttat ttccaaacat gattgaaaaa aaaccccgca cttggcaact 3300
 tcttctcttt ttcagcctag aaatgtctgt gttaagtggc tttttattta 3350
 ttgttggtgt ttgttggtat tgttggtttg ttgccaggct ccaactcaca 3400
 aaatacgagt ttaaaaactg cgttggttatt tttagagatt tgtgataata 3450
 caacttggtta taaaatttat tcttcaataa atataatttc tctactatgc 3500
 aaaaaaaaaa aaaaa 3515

<210> 27
 <211> 1879
 <212> DNA
 <213> Homo sapien

<400> 27
 cagccccgcg cgccggccga gtcgctgagc cgcggtgcc ggacgggacg 50
 ggacgggcta ggctgggcgc gccccccggg ccccgccgtg ggcatgggcg 100
 cactggcccc ggcgctgctg ctgcctctgc tggcccagtg gctcctgcgc 150
 gccgcccccg agctggcccc cgcgcccttc acgctgcccc tcgggtggc 200
 cgcgccacg aaccgcgtag ttgcgccac cccgggaccc gggacccctg 250
 ccgagcgcca cgccgacggc ttggcgctcg cctgggagcc tgccctggcg 300
 tccccgcgg gcgcccga cttcttggcc atggtagaca acctgcaggg 350
 ggactctggc cgcggtact acctggagat gctgatcggg accccccgc 400

agaagctaca gattctcgtt gacactggaa gcagtaactt tgccgtggca 450
 ggaacccccgc actcctacat agacacgtac ttgacacag agaggtctag 500
 cacataccgc tccaagggct ttgacgtcac agtgaagtac acacaaggaa 550
 gctggacggg cttcgttggg gaagacctcg tcaccatccc caaaggcttc 600
 aatacttctt ttcttgtcaa cattgccact atttttgaat cagagaattt 650
 ctttttgcct gggattaaat ggaatggaat acttggccta gcttatgcca 700
 cacttgccaa gccatcaagt tctctggaga ccttcttcga ctccctggtg 750
 acacaagcaa acatcccca cgttttctcc atgcagatgt gtggagccgg 800
 cttgcccgtt gctggatctg ggaccaacgg aggtagtctt gtcttgggtg 850
 gaattgaacc aagtttgtat aaaggagaca tctggtatac ccctattaag 900
 gaagagtggg actaccagat agaaattctg aaattggaaa ttggaggcca 950
 aagccttaat ctggactgca gagagtataa cgcagacaag gccatcgtgg 1000
 acagtggcac cacgctgctg cgccctgcccc agaagggtgt tgatgcggtg 1050
 gtggaagctg tggcccgcc atctctgatt ccagaattct ctgatgggtt 1100
 ctggactggg tccagctgg cgtgctggac gaattcggaa acaccttgg 1150
 ctacttccc taaaatctcc atctacctga gagacgagaa ctccagcagg 1200
 tcattccgta tcacaatcct gcctcagctt tacattcagc ccatgatggg 1250
 ggccggcctg aattatgaat gttaccgatt cggcatttcc ccatccacaa 1300
 atgcgctggg gatcgggtgcc acgggtgatg agggcttcta cgtcatcttc 1350
 gacagagccc agaagagggt gggcttcgca gcgagccct gtgcagaaat 1400
 tgcaggtgct gcagtgtctg aaatttcggg gcctttctca acagaggatg 1450
 tagccagcaa ctgtgtcccc gctcagtctt tgagcgagcc cttttgtgg 1500
 attgtgtcct atgcgctcat gagcgtctgt ggagccatcc tccttgtctt 1550
 aatcgtcctg ctgctgctgc cgttcgggtg tcagcgtcgc ccccgtagcc 1600
 ctgaggtcgt caatgatgag tcctctctgg tcagacatcg ctggaaatga 1650
 atagccaggc ctgacctcaa gcaaccatga actcagctat taagaaaatc 1700
 acatttccag ggcagcagcc gggatcgatg gtggcgcttt ctccgtgccc 1750
 caccgctctt caatctctgt tctgctccca gatgccttct agattcactg 1800
 tcttttgatt cttgattttc aagctttcaa atcctcccta cttccaagaa 1850

aaataattaa aaaaaaaact tcattctaa 1879

<210> 28

<211> 1579

<212> DNA

<213> Homo sapien

<400> 28

gagagaatag ctacagattc tccatcctca gtctttgcaa ggcgacagct 50
gtgccagccg ggctctggca ggctcctggc agcatggcag tgaagcttgg 100
gaccctcctg ctggcccttg cctgggcct ggcccagcca gcctctgccc 150
gccggaagct gctggtgttt ctgctggatg gttttcgctc agactacatc 200
agtgatgagg cgctggagtc attgcctggg ttcaaagaga ttgtgagcag 250
gggagtaaaa gtggattact tgactccaga cttccctagt ctctcgatc 300
ccaattatta taccctaag actggccgcc attgtgaagt ccatcagatg 350
atcggaact acatgtggga cccaccacc aacaagtcct ttgacattgg 400
cgtcaacaaa gacagcctaa tgctctctg gtggaatgga tcagaacctc 450
tgtgggtcac tctgaccaag gccaaaagga aggtctacat gtactactgg 500
ccaggctgtg aggttgagat tctgggtgtc agaccacct actgcctaga 550
atataaaaat gtcccaacgg atatcaattt tgccaatgca gtcagcgatg 600
ctcttgactc cttcaagagt ggccgggccc acctggcagc catataccat 650
gagcgcattg acgtggaagg ccaccactac gggcctgcat ctccgcagag 700
gaaagatgcc ctcaaggctg tagacactgt cctgaagtac atgaccaagt 750
ggatccagga gcggggcctg caggaccgcc tgaacgtcat tattttctcg 800
gatcacggaa tgaccgacat tttctggatg gacaaagtga ttgagctgaa 850
taagtacatc agcctgaatg acctgcagca agtgaaggac cgcgggcctg 900
ttgtgagcct ttggccggcc cctgggaaac actctgagat atataacaaa 950
ctgagcacag tggaacacat gactgtctac gagaaagaag ccatcccaag 1000
caggttctat tacaagaaag gaaagtttgt ctctcctttg acttttagtgg 1050
ctgatgaagg ctggttcata actgagaatc gagagatgct tccgttttgg 1100
atgaacagca ccggcaggcg ggaaggttgg cagcgtggat ggcacggcta 1150
cgacaacgag ctcatggaca tgcggggcat cttcctggcc ttcggacctg 1200
atttcaaate caacttcaga gctgctccta tcaggtcggt ggacgtctac 1250

aatgtcatgt gcaatgtggt gggcatcacc ccgctgccc acaacggatc 1300
 ctggtccagg gtgatgtgca tgc tgaaggg ccgcgccggc actgccccgc 1350
 ctgtctggcc cagccactgt gccctggcac tgattcttct cttcctgctt 1400
 gcataactga tcatattgct tgtctcagaa aaaaacacca tcagcaaagt 1450
 gggcctccaa agccagatga ttttcatttt atgtgtgaat aatagcttca 1500
 ttaacacaat caagaccatg cacattgtaa atacattatt cttggataat 1550
 tctatacata aaagttccta cttgttaaa 1579

<210> 29
 <211> 471
 <212> DNA
 <213> Homo sapien

<400> 29
 gcatttttgt ctgtgctccc tgatcttcag gtcaccacca tgaagttctt 50
 agcagtcttg gtactcttgg gagtttccat ctttctgggc tctgccaga 100
 atccgacaac agctgctcca gctgacacgt atccagctac tggctctgct 150
 gatgatgaag cccctgatgc tgaaaccact gctgctgcaa ccaactgcgac 200
 cactgctgct cctaccactg caaccaccgc tgcttctacc actgctcgta 250
 aagacattcc agttttaccc aaatgggttg gggatctccc gaatggtaga 300
 gtgtgtccct gagatggaat cagcttgagt cttctgcaat tggtcacaac 350
 tattcatgct tctgtgatt tcatccaact acttaccttg cctacgatat 400
 cccctttatc tctaatacgt ttattttctt tcaaataaaa aataactatg 450
 agcaacataa aaaaaaaaaa a 471

<210> 30
 <211> 1021
 <212> DNA
 <213> Homo sapien

<400> 30
 gactacgggg agagagagga gaccaggaca gctgctgaga cctctaagaa 50
 gtccagatac taagagcaaa gatgtttcaa actggggggc tcattgtctt 100
 ctacgggctg ttagcccaga ccatggccca gtttgagggc ctgcccgtgc 150
 ccctggacca gaccctgccc ttgaatgtga atccagccct gcccttgagt 200
 cccacaggtc ttgcaggaag cttgacaaat gccctcagca atggcctgct 250
 gtctgggggc ctgttgggca ttctggaaaa ccttcgctc ctggacatcc 300

tgaagcctgg aggaggtact tctggtggcc tccttggggg actgcttgga 350
 aaagtgacgt cagtgattcc tggcctgaac aacatcattg acataaaggt 400
 cactgacccc cagctgctgg aacttggcct tgtgcagagc cctgatggcc 450
 accgtctcta tgtcaccatc cctctcggca taaagctcca agtgaatacg 500
 cccctggctg gtgcaagtct gttgaggtg gctgtgaagc tggacatcac 550
 tgcagaaatc ttagctgtga gagataagca ggagaggatc cacctgggtcc 600
 ttggtgactg caccattcc cctggaagcc tgcaaatttc tctgcttgat 650
 ggacttggtc cctcccccatt caaggtctt ctggacagcc tcacagggat 700
 cttgaataaa gtccctgcctg agttggttca gggcaacgtg tgccctctgg 750
 tcaatgaggt tctcagaggc ttggacatca ccttggtgca tgacattgtt 800
 aacatgctga tccacggact acagtttgtc atcaaggtct aagccttcca 850
 ggaaggggct ggcctctgct gagctgcttc ccagtgtca cagatggctg 900
 gcccatgtgc tggaagatga cacagttgcc ttctctccga ggaacctgcc 950
 cctctcctt tcccaccagg cgtgtgtaac atcccatgtg cctcacctaa 1000
 taaaatggct cttcttatgc a 1021

<210> 31
 <211> 2868
 <212> DNA
 <213> Homo sapien

<400> 31
 gggcgctggg agacaccgga cgcccgctcg gctgcgctgc ggctcaggcc 50
 cccgctcggg cccgacccgc tcggtcaccg ccggtcggg cgcgcacctg 100
 ccggtgcggg cccaggggcc atgcggaggc ccacgaggag gccggcggcc 150
 acgcgcattc cgtagcccag gtggcccagg tctgcaccgc ggcggcctcg 200
 gcgccatgga gccccgtat tcgtgacgg cgcactacga tgagttccaa 250
 gaggtcaagt acgtgagccg ctgcggcgcg gggggcgcg gcggggcctc 300
 cctgcccccg ggcttcccg tgggcgctgc gcgcagcgtc accggggccc 350
 ggtccgggct gccgcgctgg aaccggcgcg aggtgtgcct gctgtcgggg 400
 ctggtgttcg ccgcgggct ctgcgccatt ctggcggcta tgctggccct 450
 caagtacctg ggcccggctg cggccggcgg cggcgctgt cccgagggct 500
 gccctgagcg caaggccttc gcgcgcgcg ctgccttcc ggccgccaac 550

ctggacgcca gcatcgaccc atgccaggac ttctactcgt tcgcctgcgg 600
cggttggctg cggcgccacg ccatccccga cgacaagctc acctatggca 650
ccatcgcggc catcggcgag caaaacgagg agcgccctacg gcgcctgctg 700
gcgcggccccg ggggtgggcc tggcggcgcg gccacgcgca aggtgcgcgc 750
cttcttccgc tcgtgcctcg acatgcgcga gatcgagcga ctgggccccgc 800
gacccatgct agaggtcacg gaggactgcg ggggctggga cctgggcggc 850
gcggaggagc gtccgggggt cgcggcgcgga tgggacctca accggctgct 900
gtacaaggcg cagggcggtg acagcgccgc cgcgctcttc tcgctcacgg 950
tcagcctgga cgacaggaac tcctcgcgct acgtcatccg cattgaccag 1000
gatgggctca ccctgccaga gaggaccctg tacctcgctc aggatgagga 1050
cagtgagaag atcctggcag catacagggt gttcatggag cgagtgctca 1100
gcctcctggg tgcagacgct gtggaacaga aggcccaaga gatcctgcaa 1150
gtggagcagc agctggccaa catcactgtg tcagagtatg acgacctacg 1200
gcgagatgtc agctccatgt acaacaaggc gacgctgggg cagctgcaga 1250
agatcacccc ccacttgccg tggaaagtggc tgctagacca gatcttccag 1300
gaggacttct cagaggaaga ggaggtggtg ctgctggcga cagactacat 1350
gcagcaggtg tcgcagctca tccgctccac accccaccgg gtcctgcaca 1400
actacctggt gtggcgcggt gtggtggtcc tgagtgaaca cctgtccccg 1450
ccattccgtg aggcactgca cgagctggca caggagatgg agggcagcga 1500
caagccacag gagctggccc gggctctgctt gggccaggcc aatcgccact 1550
ttggcatggc gcttggcgcc ctctttgtac atgagcaact ctcagccgcc 1600
agcaaagcca aggtgcagca gctagtggaa gacatcaagt acatcctggg 1650
ccagcgctg gaggagctgg actggatgga cgccgagacc agggctgctg 1700
ctcgggccaa gctccagtac atgatggtga tggtcggcta cccggacttc 1750
ctgctgaaac ccgatgctgt ggacaaggag tatgagtttg aggtccatga 1800
gaagacctac ttcaagaaca tcttgaacag catccccctc agcatccagc 1850
tctcagttaa gaagattcgg caggaggtgg acaagtcac gtggctgctc 1900
ccccacagg cgctcaatgc ctactatcta cccaacaaga accagatggt 1950
gttccccgcg ggcacctgc agccaccct gtacgacct gacttccac 2000

agtctctcaa ctacgggggc atcggcacca tcattggaca tgagctgacc 2050
 cacgggtacg acgactgggg gggccagtat gaccgctcag ggaacctgct 2100
 gcactgggtg acggaggcct cctacagccg cttcctgcga aaggctgagt 2150
 gcatcggtccg tctctatgac aacttcactg tctacaacca gcgggtgaac 2200
 gggaaacaca cgcttgggga gaacatcgca gatatgggcg tcctcaagct 2250
 ggcctaccac gcctatcaga agtgggtgcg ggagcacggc ccagagcacc 2300
 cacttccccg gctcaagtac acacatgacc agctcttctt cattgccttt 2350
 gcccagaact ggtgcatcaa gcggcggtcg cagtccatct acctgcaggt 2400
 gctgactgac aagcatgccc ctgagcacta cagggtgctg ggcagtgtgt 2450
 cccagtttga ggagtttggc cgggctttcc actgtcccaa ggactcacc 2500
 atgaacctg cccacaagtg ttccgtgtgg tgagcctggc tgcccgcctg 2550
 cacgccccca ctgccccgc acgaatcacc tcctgctggc taccggggca 2600
 ggcacgcacc cgggtgccagc cccgctctgg gcaccacctg ccttccagcc 2650
 cctccaggac ccggtcccc tgctgcccct cacttcagga ggggcctgga 2700
 gcaggggtgag gctggacttt ggggggctgt gagggaaata tactggggtc 2750
 cccagattct gctctaaggg ggccagacc tcctgccaggc tggattgtac 2800
 gggccccacc ttcgctgtgt tcttgctgca aagtctggtc aataaatcac 2850
 tgcactgtta aaaaaaaaa 2868

<210> 32
 <211> 2664
 <212> DNA
 <213> Homo sapien

<400> 32
 gagagaacag cgtgagcctg tgtgcttgtg tgctgagccc tcatcccctc 50
 ctggggccag gcttgggttt cacctgcaga atcgcttgtg ctgggctgcc 100
 tgggctgtcc tcagtggcac ctgcatgaag ccgttctggc tgccagagct 150
 ggacagcccc aggaaaaccc acctctctgc agagcttgcc cagctgtccc 200
 cgggaagcca aatgcctctc atgtaagtct tctgctcgac ggggtgtctc 250
 ctaaaccctc actcttcagc ctctgtttga ccatgaaatg aagtgactga 300
 gctctattct gtacctgcca ctctatttct ggggtgactt ttgtcagctg 350
 cccagaatct ccaagccagg ctggttctct gcaccccttc aatgacctgt 400

tttcttctgt aaccacaggt tcggtggtga gaggaagcct cgcagaatcc 450
 agcagaatcc tcacagaatc cagcagcagc tctgctgggg acatggtcca 500
 tgggtgcaacc cacagcaaag ccctgacctg acctcctgat gctcaggaga 550
 agccatgggg ccctcctgtc ctgtgttctt gtccttcaca aagctcagcc 600
 tgtggtggct ccttctgacc ccagcaggtg gagaggaagc taagcgcca 650
 cctcccaggg ctctggaga cccactctcc tctcccagtc ccacggcatt 700
 gccgcaggga ggctcgata ccgagactga ggaccggctc ttcaaacc 750
 tcttcgggg ctacaaccgc tgggcgcgcc cggtgccaa cacttcagac 800
 gtggtgattg tgcgttttg actgtccatc gctcagctca tcgatgtgga 850
 tgagaagaac caaatgatga ccaccaacgt ctggctaaaa caggagtgga 900
 gcgactaaa actgcgtgg aaccccgctg attttggcaa catcacatct 950
 ctccgggtcc cttctgagat gatctggatc cccgacattg ttctctaaa 1000
 caatgcagat ggggagtttg cagtgacca catgaccaag gccacctct 1050
 tctccacggg cactgtgcac tgggtgcccc cggccatcta caagagctcc 1100
 tgcagcatcg acgtcacctt cttccccttc gaccagcaga actgcaagat 1150
 gaagtttggc tcttgactt atgacaaggc caagatcgac ctggagcaga 1200
 tggagcagac tgtggacctg aaggactact gggagagcgg cgagtgggcc 1250
 atcgtcaatg ccacgggcac ctacaacagc aagaagtacg actgctgcgc 1300
 cgagatctac cccgacgtca cctacgcctt cgtcatccgg cggtgccgc 1350
 tcttctacac catcaacctc atcatccctt gctgtctcat ctctgcctc 1400
 actgtgctgg tcttctacct gccctccgac tgcggcgaga agatcacgt 1450
 gtgcatttcg gtgctgctgt cactcaccgt cttcctgctg ctcatcactg 1500
 agatcatccc gtccacctcg ctggatcatc cgctcatcgg cgagtacctg 1550
 ctgttcacca tgatcttcgt caccctgtcc atcgatcatc ccgtcttcgt 1600
 gctcaatgtg caccaccgt cccccagcac ccacaccatg cccactggg 1650
 tgcggggggc ccttctgggc tgtgtgcccc ggtggcttct gatgaaccgg 1700
 cccccaccac ccgtggagct ctgccacccc ctacgcctga agctcagccc 1750
 ctcttatcac tggctggaga gcaacgtgga tgccgaggag agggaggtgg 1800
 tgggtggagga ggaggacaga tgggcatgtg caggatcatgt ggccccctct 1850

gtgggcaccc tctgcagcca cggccacctg cactctgggg cctcaggtcc 1900
 caaggctgag gctctgctgc aggagggtga gctgctgcta tcaccccaca 1950
 tgcagaaggc actggaaggt gtgcactaca ttgccgacca cctgcggtct 2000
 gaggatgctg actcttcggt gaaggaggac tggaagtatg ttgccatggt 2050
 catcgacagg atcttctctt ggctgtttat catcgtctgc ttcttgggga 2100
 ccatcggcct ctttctgcct ccgttcctag ctggaatgat ctgactgcac 2150
 ctccctcgag ctggctccca gggcaaaggg gagggttctt ggatgtggaa 2200
 gggctttgaa caatgttttag atttgagat gagcccaaag tgccagggag 2250
 aacagccagg tgagggtggga gggttgagag ccagggtgagg tctctctaag 2300
 tcaggctggg gttgaagttt ggagtctgtc cgagtttgca ggggtgctgag 2350
 ctgtatggtc cagcagggga gtaataaggg ctcttcggga aggggaggaa 2400
 gggggaggca ggctgcacc tgatgtggag gtacaggcag atcttccta 2450
 ccggggaggg atggatgggt ggatacagggt ggctgggcta ttccatccat 2500
 ctggaagcac atttgagcct ccaggcttct ccttgacgtc attcctctcc 2550
 ttcttctgtg caaaatgggt ctgcaccagc cggcccccag gaggtctggc 2600
 agagctgaga gccatggcct gcaggggctc catatgtccc tacgctgca 2650
 gcaggcaaac aaga 2664

<210> 33
 <211> 887
 <212> DNA
 <213> Homo sapien

<400> 33
 ctctgtctctg ggacttggtg gtgctaccct tggcctccca cagtctgcc 50
 accctgctgc cgccaccatg ctgccccctg ggactgagac cctcttgact 100
 ctgtctctgg cagctggctc gctgggcccag aagcctcaga ggccacgccg 150
 gcccgcatcc cccatcagca ccatccagcc caaggccaat tttgatgtc 200
 agcagtttgc agggacctgg ctcttctgtg ctgtgggctc cgcttgccgt 250
 ttcttgcagg agcagggcca ccgggcccag gccaccacac tgcattgtggc 300
 tccccagggc acagccatgg ctgtcagtac cttccgaaag ctggatggga 350
 tctgctggca ggtgcgccag ctctatggag acacaggggt cctcgggcgc 400
 ttctgtcttc aagcccaggg cgcccagggg gctgtgaacg tggttgtcgc 450

tgagactgac taccagagtt tcgctgtcct gtacctggag cgggcggggc 500
 agctgtcagt gaagctctac gcccgtctgc tccctgtgag cgactcggtc 550
 ctgagtgggt ttgagcagcg ggtccaggag gccacactga ctgaggacca 600
 gatctttctac ttccccaagt acggcttctg cgaggctgca gaccagttcc 650
 acgtcctgga cgaagtgagg aggtgaggcc ggcacacagc tccagtgtctg 700
 agaagtcaagt gccccgagag acgacccccac cagtgggggtg cccgctgcct 750
 gtcctccgtg aaaccagcct cagatcaggg ccctgccacc cagggcaggg 800
 gatctttctgc cggctgcccc agaggacagt ggggtggagtg gtacctactt 850
 attaaatgtc tcagacccca aaaaaaaaaa aaaaaaa 887

<210> 34
 <211> 1109
 <212> DNA
 <213> Homo sapien

<400> 34
 aagaacaatt gtctctggac ggcagctatg cgactcacgg tgctgtgtgc 50
 tgtgtgcttg ctgctggca gcctggcct gccgctgct caggaggcgg 100
 gaggcatgag tgagctacag tgggaacagg ctcaggacta tctcaagaga 150
 ttttatctct atgactcaga aacaaaaaat gccaacagtt tagaagccaa 200
 actcaaggag atgcaaaaat tctttggcct acctataact ggaatgttaa 250
 actcccgcgt catagaaata atgcagaagc ccagatgtgg agtgccagat 300
 gttgcagaat actcactatt tccaaatagc ccaaaatgga cttccaaagt 350
 ggtcacctac aggatcgat catatactcg agacttacgg catattacag 400
 tggatcgatt agtgtcaaag gctttaaaca tgtggggcaa agagatcccc 450
 ctgcatttca ggaaagttgt atggggaact gctgacatca tgattggctt 500
 tgcgcgagga gtcctgggg actcctaccc atttgatggg ccaggaaaca 550
 cgctggctca tgcctttgcg cctgggacag gtctcggagg agatgtcac 600
 ttcgatgagg atgaacgctg gacggatggg agcagtctag ggattaactt 650
 cctgtatgct gcaactcatg aacttggcca ttctttgggt atgggacatt 700
 cctctgatcc taatgcagtg atgtatccaa cctatggaaa tggagatccc 750
 caaaatttta aactttccca ggatgatatt aaaggcattc agaaactata 800
 tggaaagaga agtaattcaa gaaagaaata gaaacttcag gcagaacatc 850

cattcattca ttcattggat tgtatatcat tgttgcacaa tcagaattga 900
taagcactgt tctccactc catttagcaa ttatgtcacc cttttttatt 950
gcagttgggt tttgaatgtc tttcactcct ttatttggtt aaactccttt 1000
atggtgtgac tgtgtcttat tccatctatg agctttgtca gtgcgcgtag 1050
atgtcaataa atgttacata cacaataaaa taaaatattt aggccatggt 1100
aaatttacc 1109

<210> 35
<211> 1504
<212> DNA
<213> Homo sapien

<400> 35
gagcgagcac cttegacgcg gtccggggac cccctcgteg ctgtcctccc 50
gacgcggacc cgcggtgcccc aggcctcgcg ctgcccggcc ggctcctcgt 100
gtccactcc cggcgcacgc cctccgcgc cctcttctc ggcgcgcgcg 150
cagcatggcg cccccgcagg tctcgcggtt cgggcttctg cttgccgcgg 200
cgacggcgac ttttgccgca gctcaggaag aatgtgtctg tgaaaactac 250
aagctggccg taaactgctt tgtgaataat aatcgtaaat gccagtgtac 300
ttcagttggt gcacaaaata ctgtcatttg ctcaaagctg gctgccaaat 350
gtttggtgat gaaggcagaa atgaatggct caaaacttgg gagaagagca 400
aaacctgaag gggccctcca gaacaatgat gggctttatg atcctgactg 450
cgatgagagc gggctcttta aggccaaagca gtgcaacggc acctccacgt 500
gctggtgtgt gaacactgct ggggtcagaa gaacagacaa ggacactgaa 550
ataacctgct ctgagcgagt gagaacctac tggatcatca ttgaactaaa 600
acacaaagca agagaaaaac cttatgatag taaaagtttg cggactgcac 650
ttcagaagga gatcacaacg cgttatcaac tggatccaaa atttatcacg 700
agtattttgt atgagaataa tgttatcact attgatctgg ttcaaaattc 750
ttctcaaaaa actcagaatg atgtggacat agctgatgtg gcttattatt 800
ttgaaaaaga tgtaaagggt gaatccttgt ttcattctaa gaaaatggac 850
ctgacagtaa atggggaaca actggatctg gatcctggtc aaactttaat 900
ttattatggt gatgaaaaag cacctgaatt ctcaatgcag ggtctaaaag 950
ctggtgttat tgctgttatt gtggttgtgg tgatggcagt tggtgctgga 1000

attgttgtgc tggttatttc cagaaagaag agaattggcaa agtatgagaa 1050
 ggctgagata aaggagatgg gtgagatgca tagggaactc aatgcataac 1100
 tatataattt gaagattata gaagaaggga aatagcaaata ggacacaaat 1150
 tacaaatgtg tgtgcgtggg acgaagacat ctttgaaggc catgagtttg 1200
 ttagtttaac atcatatatt tgtaatagtg aaacctgtac tcaaaatata 1250
 agcagcttga aactggcttt accaatcttg aaatttgacc acaagtgtct 1300
 tatatatgca gatctaattg aaaatccaga acttggactc catcgtaaaa 1350
 attatttatg tgtaacattc aaatgtgtgc attaaatatg cttccacagt 1400
 aaaatctgaa aaactgattt gtgattgaaa gctgcctttc tatttacttg 1450
 agtcttgtag atacatactt ttttatgagc tatgaaataa aacattttta 1500
 actg 1504

<210> 36
 <211> 777
 <212> DNA
 <213> Homo sapien

<400> 36
 gctccgggct gaagattgct tctcttctct cctccaaggc ctagtgacgg 50
 agcccgcgcg cgccgccacca tgcggcagaa ggcgggtatcc gttttcttgt 100
 gctacctgct gctcttcaact tgcagtgggg tggaggcagg taagaaaaag 150
 tgctcggaga gctcggacag cggctccggg ttctggaagg cctgacctt 200
 catggccgct ggaggaggac tgcagtcgc cgggctgccc gcgctgggct 250
 tcaccggcgc cggcatcgcg gccaaactcg tggctgcctc gctgatgagc 300
 tgggtctgca tctgaatgg gggcggcggt cccgcggggg ggctagtggc 350
 cacgctgcag agcctcgggg ctggtggcag cagcgtcgtc ataggtaata 400
 ttggtgcctt gatgcggtac gccaccaca agtatctoga tagtgaggag 450
 gatgaggagt agccagcagc tcccagaacc tcttcttctt tcttggccta 500
 actcttccag ttaggatcta gaactttgcc tttttttttt tttttttttt 550
 tttgagatgg gttctcacta tattgtccag gctagagtgc agtggctatt 600
 cacagatgcg aacatagtac actgcagcct ccaactccta gcctcaagtg 650
 atcctcctgt ctcaacctcc caagtaggat tacaagcatg cggcgacgat 700
 gccagaatc cagaactttg tctatcactc tcccacaaca cctagatgtg 750

aaaacagaat aaacttcacc cagaaaa 777

<210> 37

<211> 3416

<212> DNA

<213> Homo sapien

<400> 37

gccgccgagg gcagccagcc cctcccctac ccggagcagc ccgctggggc 50
cgccccgagc ggcgacacac taggagtccc ggccggccag ccagggcagc 100
cgcggtcccc ggactcggcc gtgagtgtg cgggacggat ggtggcggcg 150
ggagcgcgga gaccacggcg ggcgccgtgg agccggggcg cgtgcagccg 200
gagctgcgcg cggggcatgc ggctgcgccc cggcccctcg gcccccgcc 250
tcggcccccg cgctccggcc ccagccccgg ccgccggccc ccgcggagtg 300
cagcgaccgc gccgccgtg agggaggcgc cccaccatgc cgcgggcccc 350
ggcgccgtg tacgcctgc tcctggggct ctgcgcgtc ctgccccggc 400
tcgcaggtct caacatatgc actagtggaa gtgccacctc atgtgaagaa 450
tgtctgctaa tccacccaaa atgtgcctgg tgctccaaag aggacttcgg 500
aagcccacgg tccatcacct ctcggtgtga tctgagggca aaccttgtca 550
aaaatggctg tggaggtgag atagagagcc cagccagcag cttccatgtc 600
ctgaggagcc tgccccctcag cagcaagggt tcgggctctg caggctggga 650
cgtcattcag atgacaccac aggagattgc cgtgaacctc cggcccgggtg 700
acaagaccac cttccagcta caggttcgcc aggtggagga ctatcctgtg 750
gacctgtact acctgatgga cctctccctg tccatgaagg atgacttgga 800
caatatccgg agcctgggca ccaaactcgc ggaggagatg aggaagctca 850
ccagcaactt ccggttggga tttgggtctt ttgttgataa ggacatctct 900
cctttctcct acaoggcacc gaggtaccag accaatccgt gcattgggta 950
caagttgttt ccaaattgcg tcccctcctt tgggttcgc catctgctgc 1000
ctctcacaga cagagtggac agcttcaatg aggaagtctg gaaacagagg 1050
gtgtcccgga accgagatgc ccctgagggg ggctttgatg cagtactcca 1100
ggcagccgtc tgcaaggaga agattggctg gcgaaaggat gcactgcatt 1150
tgctgggtgt cacaacagat gatgtgcccc acatcgcatt ggatggaaaa 1200
ttgggaggcc tgggtgcagc acacgatggc cagtgccacc tgaacgaggc 1250

caacgagtag acagcatcca accagatgga ctatccatcc cttgccttgc 1300
 ttggagagaa attggcagag aacaacatca acctcatctt tgcagtgaca 1350
 aaaaaccatt atatgctgta caagaatttt acagccctga tacctggaac 1400
 aacggtggag attttagatg gagactccaa aaatattatt caactgatta 1450
 ttaatgcata caatagtatc cggctctaaag tggagttgtc agtctgggat 1500
 cagcctgagg atcttaatat cttctttact gctacctgcc aagatggggt 1550
 atcctatcct ggtcagagga agtgtgaggg tctgaagatt ggggacacgg 1600
 catcttttga agtatcattg gagggccgaa gctgtcccag cagacacacg 1650
 gagcatgtgt ttgccctgcg gccggtggga ttccgggaca gcctggaggt 1700
 gggggtcacc tacaactgca cgtgcggctg cagcgtgggg ctggaacca 1750
 acagcgccag gtgcaacggg agcgggacct atgtctgcgg cctgtgtgag 1800
 tgcagccccg gctacctggg caccaggtgc gagtgccagg atggggagaa 1850
 ccagagcgtg taccagaacc tgtgccggga ggcagagggc aagccactgt 1900
 gcagcgggcg tggggactgc agctgcaacc agtgctcctg cttcgagagc 1950
 gaggtttgga agatctatgg gcctttctgt gagtgcgaca acttctcctg 2000
 tgccaggaaac aaggaggtcc tctgctcagg ccatggcgag tgtcactgcg 2050
 gggaaatgca gtgccatgca ggttacatcg gggacaactg taactgctcg 2100
 acagacatca gcacatgccg gggcagagat ggcagatct gcagcgagcg 2150
 tgggcactgt ctctgtgggc agtgccaatg cacggagccg ggggcctttg 2200
 gggagatgtg tgagaagtgc cccacctgcc cggatgcatg cagcaccaag 2250
 agagattgcg tcgagtgcct gctgctccac tctgggaaac ctgacaacca 2300
 gacctgccac agcctatgca gggatgaggt gatcacatgg gtggacacca 2350
 tcgtgaaaga tgaccaggag gctgtgctat gtttctacaa aaccgccaag 2400
 gactgcgtca tgatgttcac ctatgtggag ctccccagtg ggaagtccaa 2450
 cctgaccgtc ctcagggagc cagagtgtgg aaacaccccc aacgccatga 2500
 ccatcctcct ggctgtggtc ggtagcatcc tccttggttg gcttgcactc 2550
 ctggctatct ggaagctgct tgtcaccatc cagcaccgga gggagtttgc 2600
 aaagtttcag agcgagcgat ccaggggccg ctatgaaatg gcttcaaata 2650
 cattatacag aaagcctatc tccacgcaca ctgtggactt caccttcaac 2700

aagttcaaca aatcctacaa tggcactgtg gactgatgtt tccttctccg 2750
 aggggctgga gcggggatct gatgaaaagg tcagactgaa acgccttgca 2800
 cggtctctcg gcttgatcac agctccctag gtaggcacca cagagaagac 2850
 cttctagtga gcctgggcca ggagcccaca gtgctgtaca acaagggaaa 2900
 ggtagcctgg ccatgtcacc tggctgctag ccagagccat gccaggttcg 2950
 cgtccctaag agcttgggat aaagcaaggg gaccttggcg ctctcagctt 3000
 tcctgccac atccagcttg ttgtcccaat gaaatactga gatgctgggc 3050
 tgtctctccc ttccaggaat cgtgggcccc cagcctggcc agacaagaag 3100
 actgtcagga agggctggag tctgtaaaac cagcatacag tttggctttt 3150
 ttcacattga tcatttttat atgaaataaa aagatcctgc atttatggtg 3200
 tagttctgag tctgagact. tttctgcgtg atgctatgcc ttgcacacag 3250
 gtgttggtga tggggctgtt gagatgcctg ttgaaggtag atcgtttgca 3300
 aatgtcagtt tcctctcctg tccgtgtttg tttagtactt ttataatgaa 3350
 aagaaacaag attgtttggg attggaagta aagattaaaa ccaaaagaat 3400
 ttgtgtttgt ctgccc 3416

<210> 38

<211> 2148

<212> DNA

<213> Homo sapien

<400> 38

cgactcacta tagggcgaat tgaatttagc ggccgcgaat tcgcccttat 50
 gctgccacaa ataccctttt tgctgctagt atccttgaac ttggttcatg 100
 gagtgtttta cgctgaacga taccaaatgc ccacaggcat aaaaggccca 150
 ctaccaaca ccaagacaca gttcttcatt ccctacacca taaagagtaa 200
 aggtatagca gtaagaggag agcaaggtag tcttgggtcca ccaggccctg 250
 ctggacctcg agggcaccca ggtccttctg gaccaccagg aaaaccaggc 300
 tacggaagtc ctggactcca aggagagcca gggttgccag gaccaccggg 350
 accatcagct gtagggaaac caggtgtgcc aggactccca ggaaaaccag 400
 gagagagagg accatatgga ccaaaaggag atgttggacc agctggccta 450
 ccaggacccc ggggccacc aggaccacct ggaatccctg gaccggctgg 500
 aatttctgtg ccaggaaaac ctggacaaca gggaccacca ggagccccag 550

gacccagggg ctttcctgga gaaaaggggtg caccaggagt ccctggatatg 600
aatggacaga aaggggaaat gggatatggg gtccttggtc gtccagggtga 650
gaggggtctt ccaggccctc aggggtccac aggaccatct ggccctcctg 700
gagtgggaaa aagaggtgaa aatgggggttc caggacagcc aggcatacaa 750
ggtgatagag gttttccggg agaaatggga ccaattggcc caccagggtcc 800
ccaaggccct cctggggaac gagggccaga aggcattgga aagccaggag 850
ctgctggagc ccaggccag ccagggatc caggaacaaa aggtctccct 900
ggggctccag gaatagctgg gccccaggg cctcctggct ttgggaaacc 950
aggcttgcca ggctgaagg gagaaagagg acctgctggc cttcctgggg 1000
gtccagggtc caaaggggaa caagggccag caggtcttcc tgggaagcca 1050
ggtctgactg gacccctgg gaatatggga cccaaggac caaaaggcat 1100
ccgggtagc catggtctcc caggccctaa aggtgagaca gggccagctg 1150
ggcctgcagg ataccctgg gctaaggggtg aaaggggttc ccctgggtca 1200
gatggaaaac cagggtacc aggaaaacca ggtctcgatg gtccaaagg 1250
taaccagggt ttaccaggtc caaaagggtga tcctggagtt ggaggacctc 1300
ctggtctccc aggcctgtg ggcccagcag gagcaaagg aatgcccgga 1350
cacaatggag aggctggccc aagaggtgcc cctggaatac caggtagtag 1400
aggccctatt gggccaccag gcattccagg attccctggg tctaaagggg 1450
atccaggaag tcccggctct cctggcccag ctggcatagc aactaagggc 1500
ctcaatggac ccaccgggccc accagggcct ccagggtcaa gagggcactc 1550
tgagagcct ggtcttccag ggccccctgg gcctccaggc ccaccaggtc 1600
aagcagtcac gcctgagggt tttataaagg caggccaaag gccagtcctt 1650
tctgggaccc ctcttggttag tgccaaccag ggggtaacag gaatgcctgt 1700
gtctgctttt actgttattc tctccaaagc ttaccagca ataggaactc 1750
ccataccatt tgataaaatt ttgtataaca ggcaacagca ttatgacca 1800
aggactggaa tctttacttg tcagatacca ggaatatact attttccata 1850
ccacgtgcat gtgaaagggc ctcattgttg ggtaggcctg tataagaatg 1900
gcacccctgt aatgtacacc tatgatgaat acaccaaagg ctacctggat 1950
caggcttcag ggagtgccat catcgatctc acagaaaatg accagggtgtg 2000

gctccagctt cccaatgccg agtcaaattg cctatactcc tctgagtatg 2050
 tccactcctc tttctcagga ttcttagtggt ctccaatgtg agtacaaggg 2100
 cgaattcggt taaacctgca ggactagtcc ctttagtgag ggttaatt 2148

<210> 39
 <211> 1846
 <212> DNA
 <213> Homo sapien

<400> 39
 gttggtgacc aagagtacat ctcttttcaa atagctggat taggtcctca 50
 tgctgctgtg gtcattgctg gtcattcttg atgcagtcac tgaacaggca 100
 gattcgctga ccttgtggc gccctcttct gtcttcgaag gagacagcat 150
 cgttctgaaa tgccagggag aacagaactg gaaaattcag aagatggctt 200
 accataagga taacaaagag ttatctgttt tcaaaaaatt ctgagatttc 250
 cttatccaaa gtgcagtttt aagtgcagct ggtaactatt tctgtagtac 300
 caaaggacaa ctctttctct gggataaaac ttcaaatata gtaaagataa 350
 aagtccaaga gctctttcaa cgtcctgtgc tgactgccag ctcttccag 400
 cccatcgaag ggggtccagt gagcctgaaa tgtgagaccc ggctctctcc 450
 acagaggttg gatgttcaac tccagttctg cttcttcaga gaaaaccagg 500
 tcttggggtc aggttgaggc agctctccgg agctccagat ttctgcctg 550
 tggagtgaag acacagggtc ttactggtgc aaggcagaaa cggtgactca 600
 caggatcaga aaacagagcc tccaatccca gattcacgtg cagagaatcc 650
 ccatctctaa tgtaagcttg gagatccggg cccccggggg acaggtgact 700
 gaaggacaaa aactgatcct gctctgctca gtggctgggg gtacaggaaa 750
 tgtcacattc tcttgggtaca gagaggccac aggaaccagt atgggaaaga 800
 aaaccacgct ttccctgtca gcagagctgg agatcccagc tgtgaaagag 850
 agtgatgccg gcaaatatta ctgtagagct gacaacggcc atgtgcctat 900
 ccagagcaag gtggtgaata tccctgtgag aattccagtg tctcgccctg 950
 tctcaccct caggtctcct ggggccagc ctgcagtggg ggacctgctg 1000
 gagcttcaact gtgaggccct gagaggctct cccccaatct tgtaccaatt 1050
 ttatcatgag gatgtcacc ttgggaacag ctgggcccc tctggaggag 1100
 gggcctcctt caacctctct ttgactgcag aacattctgg aaactactcc 1150

tgtgaggcca acaacggcct gggggcccag tgcagtgagg cagtgccagt 1200
 ctccatctca ggacctgatg gctatagaag agacctcatg acagctggag 1250
 ttctctgggg actgtttggt gtccttggtt tctactggtgt tgctttgctg 1300
 ttgtatgcct tgttccacaa gatatacagga gaaagtctctg ccactaatga 1350
 acccagaggg gcttccaggc caaatcctca agagttcacc tattcaagcc 1400
 caaccccaga catggaggag ctgcagccag tgtatgtcaa tgtgggctct 1450
 gtagatgtgg atgtggttta ttctcaggtc tggagcatgc agcagccaga 1500
 aagctcagca aacatcagga cacttctgga gaacaaggac tcccaagtca 1550
 tctactcttc tgtgaagaaa tcataaact tggaggaatc agaaggggaag 1600
 atcaacagca aggatggggc atcattaaga cttgctataa aaccttatga 1650
 aaatgcttga ggcttatcac ctgccacagc cagaacgtgc ctgaggaggc 1700
 acctcctgtc atttttgtcc tgatgatgtt tcttctccaa tatcttcttt 1750
 tacctatcaa tattcattga actgctgcta catccagaca ctgtgcaa 1800
 aaattatttc tgctaccttc aaaaaaaaaa aaaaaaaaaa atgcag 1846

<210> 40

<211> 1524

<212> DNA

<213> Homo sapien

<400> 40

ggcacgaggc tgcgccaggg cctgagcgga ggcgggggca gcctcgccag 50
 cggggggccc gggcctggcc atgcctcact gagccagcgc ctgcgcctct 100
 acctcgccga cagctggaac cagtgcgacc tagtggtctt cacctgcttc 150
 ctctggggcg tgggctgccc gctgaccccg ggtttgtacc acctgggccc 200
 cactgtcttc tgcctcgact tcatggtttt cacggtgcgg ctgcttcaca 250
 tcttcacggt caacaaacag ctggggccca agatcgatcat cgtgagcaag 300
 atgatgaagg acgtgttctt ctctctcttc ttctctggcg tgtggctggt 350
 agcctatggc gtggccacgg aggggctcct gaggccacgg gacagtgact 400
 tcccaagtat cctgcgcgcg gtcttctacc gtccctacct gcagatcttc 450
 gggcagattc cccaggagga catggacgtg gccctcatgg agcacagcaa 500
 ctgctcgtcg gagcccggtt tctgggcaca cctcctggg gcccaggcgg 550
 gcacctgcgt ctcccagtat gccaaactggc tgggtggtgct gctcctcgtc 600

atcttctctgc tcgtggccaa catcctgctg gtcaacttgc tcattgccat 650
 gttcagttac acatttcggca aagtacaggg caacagcgat ctctactgga 700
 aggcgcagcg ttaccgcctc atccgggaat tccactctcg gcccgcgctg 750
 gccccgcctt ttatcgtcat ctcccacttg cgctctctgc tcaggcaatt 800
 gtgcaggcga ccccgagacc cccagccgtc ctccccggcc ctcgagcatt 850
 tccgggttta cctttctaag gaagccgagc ggaagctgct aacgtgggaa 900
 tcggtgcata aggagaactt tctgctggca cgcgctaggg acaagcggga 950
 gagcgactcc gagcgtctga agcgcacgtc ccagaagggtg gacttggcac 1000
 tgaaacagct gggacacatc cgcgagtacg aacagcgctt gaaagtgtgtg 1050
 gagcgggagg tccagcagtg tagccgcgtc ctgggggtggg tggccgaggc 1100
 cctgagccgc tctgccttgc tgcccccagg tgggcccggca cccctgacc 1150
 tgcttgggtc caaagactga gccctgctgg cggacttcaa ggagaagccc 1200
 ccacagggga ttttgctcct agagtaaggc tcatctgggc ctcgcccccc 1250
 gcacctggtg gccttgtcct tgaggtgagc cccatgtcca tctgggccac 1300
 tgtcaggacc acctttggga gtgtcatcct taaaaaccac agcatgcccg 1350
 gctctccca gaaccagtcc cagcctggga ggatcaaggc ctggatcccg 1400
 ggccgttata catctggagg ctgcagggtc cttggggtaa cagggaccac 1450
 agaccctca ccactcacag attcctcaca ctggggaaat aaagccattt 1500
 cagaggaaaa aaaaaaaaaa aaaa 1524

<210> 41
 <211> 2664
 <212> DNA
 <213> Homo sapien

<400> 41
 gagagaacag cgtgagcctg tgtgcttgtg tgctgagccc tcatccctc 50
 ctggggccag gcttgggttt cacctgcaga atcgcttgtg ctgggctgcc 100
 tgggctgtcc tcagtggcac ctgcatgaag ccgttctggc tgccagagct 150
 ggacagcccc aggaaaaccc acctctctgc agagcttgcc cagctgtccc 200
 cgggaagcca aatgcctctc atgtaagtct tctgctcgac ggggtgtctc 250
 ctaaaccctc actcttcagc ctctgtttga ccatgaaatg aagtgactga 300
 gctctattct gtacctgcca ctctatttct ggggtgactt ttgtcagctg 350

cccagaatct ccaagccagg ctggttctct gcaccccttc aatgacctgt 400
tttcttctgt aaccacaggt tcggtggtga gaggaagcct cgcagaatcc 450
agcagaatcc tcacagaatc cagcagcagc tctgctgggg acatggtcca 500
tggtgcaacc cacagcaaag ccctgacctg acctcctgat gctcaggaga 550
agccatgggc ccctcctgtc ctgtgttcct gtcccttcaca aagctcagcc 600
tgtggtggct ccttctgacc ccagcaggtg gagaggaagc taagcgcca 650
cctcccaggg ctccctggaga cccactctcc tctcccagtc ccacggcatt 700
gccgcagggg ggctcgcata ccgagactga ggaccggctc ttcaaacacc 750
tcttccgggg ctacaaccgc tgggcgcgcc cggtgcccaa cacttcagac 800
gtggtgattg tgcgctttgg actgtccatc gctcagctca tcgatgtgga 850
tgagaagaac caaatgatga ccaccaacgt ctggctaaaa caggagtgga 900
gcgactacaa actgcgctgg aaccccgtg attttggcaa catcacatct 950
ctcagggctc cttctgagat gatctggatc cccgacattg ttctctacaa 1000
caatgcagat ggggagtttg cagtgacca catgaccaag gccacacct 1050
tctccacggg cactgtgcac tgggtgcccc cggccatcta caagagctcc 1100
tgcagcatcg acgtcacctt cttccccttc gaccagcaga actgcaagat 1150
gaagtttggc tccctggactt atgacaaggc caagatcgac ctggagcaga 1200
tggagcagac tgtggacctg aaggactact gggagagcgg cgagtgggccc 1250
atcgtaaatg ccacgggcac ctacaacagc aagaagtacg actgctgcgc 1300
cgagatctac cccgacgtca cctacgcctt cgtcatccgg cggtgcccgc 1350
tcttctacac catcaacctc atcatccctt gcctgctcat ctccctgcctc 1400
actgtgctgg tcttctacct gccctccgac tgcggcgaga agatcacgt 1450
gtgcatttcg gtgctgctgt cactcacgtt ctccctgctg ctcatcactg 1500
agatcatccc gtccacctcg ctggtcatcc cgctcatcgg cgagtacctg 1550
ctgttcacca tgatcttcgt caccctgtcc atcgatcat caagctctcgt 1600
gctcaatgtg caccaccgtt cccccagcac ccacaccatg cccactggg 1650
tgcggggggc ccttctgggc tgtgtgcccc ggtggcttct gatgaaccgg 1700
ccccaccac ccgtggagct ctgccacccc ctacgcctga agctcagccc 1750
ctcttatcac tggctggaga gcaacgtgga tgccgaggag agggaggtgg 1800

tgggtggagga ggaggacaga tgggcatgtg caggatcatgt ggccccctct 1850
 gtgggcacccc tctgcagcca cggccacctg cactctgggg cctcaggtcc 1900
 caaggctgag gctctgctgc aggaggggtga gctgctgcta tcaccccaca 1950
 tgcagaaggc actggaagggt gtgcactaca ttgccgacca cctgcgggtct 2000
 gaggatgctg actcttcggt gaaggaggac tggaggtatg ttgccatggt 2050
 catcgacagg atcttctctt ggctgtttat catcgctctgc ttcctgggga 2100
 ccatcggcct ctttctgcct cggttcctag ctggaatgat ctgactgcac 2150
 ctccctcgag ctggctccca gggcaaaggg gaggggttctt ggatgtggaa 2200
 gggctttgaa caatgttttag atttgagat gagcccaaag tgccaggagg 2250
 aacagccagg tgaggtggga ggttggagag ccaggtgagg tctctctaag 2300
 tcaggctggg gttgaagttt ggagtctgtc cgagtttgca ggggtgctgag 2350
 ctgtatggtc cagcagggga gtaataaggg ctcttcggga aggggaggaa 2400
 gcgggaggca ggctgcacc tgatgtggag gtacaggcag atcttcccta 2450
 ccggggaggg atggatggtt ggatacagggt ggctgggcta ttccatccat 2500
 ctggaagcac atttgagcct ccaggttctt ccttgacgtc attcctctcc 2550
 ttccttgctg caaaatggct ctgcaccagc cggccccag gaggtctggc 2600
 agagctgaga gccatggcct gcaggggtc catatgtccc tacgctgca 2650
 gcaggcaaac aaga 2664

<210> 42
 <211> 1195
 <212> DNA
 <213> Homo sapien

<400> 42
 ccgagactca cggatcaagct aaggcgaaga gtgggtgggt gaagccatac 50
 tattttatag aattaatgga aagcagaaaa gacatcacia accaagaaga 100
 actttggaaa atgaagccta ggagaaattt agaagaagac gattatttgc 150
 ataaggacac gggagagacc agcatgctaa aaagacctgt gcttttgcac 200
 ttgcacaaa cagcccatgc tgatgaattt gactgccctt cagaacttca 250
 gcacacacag gaactcttcc cacagtggca cttgccattt aaaatagctg 300
 ctattatagc atctctgact tttctttaca ctctctgag ggaagtaatt 350
 caccctttag caacttccca tcaacaatat tttataaaa ttccaatcct 400

ggatcatcaac aaagtcttgc caatgggttc catcactctc ttggcattgg 450
 tttaacctgcc aggtgtgata gcagcaattg tccaacttca taatggaacc 500
 aagtataaga agtttccaca ttgggttgat aagtggatgt taacaagaaa 550
 gcagtttggg cttctcagtt tcttttttgc tgtactgcat gcaatttata 600
 gtctgtctta cccaatgagg cgatcctaca gatacaagtt gctaaactgg 650
 gcatatcaac aggtccaaca aaataaagaa gatgcctgga ttgagcatga 700
 tgtttggaga atggagatatt atgtgtctct gggaattgtg ggattggcaa 750
 tactggctct gttggctgtg acatctattc catctgtgag tgactctttg 800
 acatggagag aatttcacta tattcagagc aagctaggaa ttgtttccct 850
 tctactgggc acaatacacg cattgatttt tgccctggaat aagtggatag 900
 atataaaaca atttgtatgg tatacacctc caacttttat gatagctgtt 950
 ttccttccaa ttgttgtcct gatatttaaa agcatactat tcttgccatg 1000
 cttgaggaag aagatactga agattagaca tgggtgggaa gacgtcacca 1050
 aaattaacaa aactgagata tgttcccagt tgtagaatta ctgtttacac 1100
 acatttttgt tcaatattga tatattttat caccaacatt tcaagtttgt 1150
 atttgtaat aaaatgatta ttcaaggaaa aaaaaaaaaa aaaaa 1195

<210> 43
 <211> 4061
 <212> DNA
 <213> Homo sapien

<400> 43
 ggtctggaag cagagccggc ggagggagcg ccggggccct gggctgcagg 50
 aggttgcggc ggccgcgga gcattggtgt gccggagaag gagcagagct 100
 ggatcccaaa gatcttcaag aagaagacct gcacgacgtt catagttgac 150
 tccacagatc cgggagggac cttgtgccag tgtgggcgcc ccgggaccgc 200
 ccaccccgca gtggccatgg aggatgcctt cggggcagcc gtggtgaccg 250
 tgtgggacag cgatgcacac accacggaga agcccaccga tgccacgga 300
 gagctggact tcacgggggc cggccgcaag cacagcaatt tctccggct 350
 ctctgaccga acggatccag ctgcagttta tagtctggtc acacgcacat 400
 ggggcttccg tgccccgaac ctggtggtgt cagtgtctggg gggatcgggg 450
 ggccccgtcc tccagacctg gctgcaggac ctgctgcgtc gtgggctggt 500

gcgggctgcc cagagcacag gagcctggat tgtcactggg ggtctgcaca 550
 cgggcatcgg ccggcatgtt ggtgtggctg tacgggacca tcagatggcc 600
 agcactgggg gcaccaaggt ggtggccatg ggtgtggccc cctggggtgt 650
 ggtccggaat agagacaccc tcatcaaccc caagggtcgt ttccctgcga 700
 ggtaccggtg gcgcggtgac ccggaggacg ggtccagtt tcccctggac 750
 tacaactact cggccttctt cctggtggac gacggcacac acggctgcct 800
 ggggggcgag aaccgcttcc gcttgcgcct ggagtcctac atctcacagc 850
 agaagacggg cgtgggaggg actggaattg acatccctgt cctgctcctc 900
 ctgattgatg gtgatgagaa gatgttgacg cgaatagaga acgccaccca 950
 ggctcagctc ccatgtctcc tcgtggctgg ctcaggggga gctgcggact 1000
 gcctggcgga gacctggaa gacactctgg ccccaggag tgggggagcc 1050
 aggcaaggcg aagcccgaga tcgaatcagg cgtttctttc ccaaagggga 1100
 ccttgaggtc ctgcaggccc aggtggagag gattatgacc cggaaggagc 1150
 tcctgacagt ctattcttct gaggatgggt ctgaggaatt cgagaccata 1200
 gttttgaagg cccttgtgaa ggcctgtggg agctcggagg cctcagccta 1250
 cctggatgag ctgcgtttgg ctgtggcttg gaaccgcgtg gacattgccc 1300
 agagtgaact ctttcggggg gacatccaat ggcggtcctt ccatctcgaa 1350
 gcttccctca tggacgcctt gctgaatgac cggcctgagt tcgtgcgctt 1400
 gctcatttcc cacggcctca gcctgggcca ctctctgacc ccgatgcgcc 1450
 tggcccaact ctacagcgcg gcgcctcca actcgctcat ccgcaacctt 1500
 ttggaccagg cgtccacag cgcaggcacc aaagccccag ccctaaaagg 1550
 gggagctgcg gagctccggc cccctgacgt ggggcatgtg ctgaggatgc 1600
 tgctggggaa gatgtgcgcg ccgaggtaac cctccggggg cgctgggac 1650
 cctcaccag gccagggctt cggggagagc atgtatctgc tctcggacaa 1700
 ggccacctcg ccgtctctgc tggatgctgg cctcgggcag gccccctgga 1750
 gcgacctgct tctttgggca ctgttctga acagggcaca gatggccatg 1800
 tacttctggg agatgggttc caatgcagtt tctcagctc ttggggcctg 1850
 tttgctgctc cgggtgatgg cacgcctgga gcctgacgt gaggaggcag 1900
 cacggaggaa agacctggcg ttcaagtttg aggggatggg cgttgacctc 1950

tttggcgagt gctatcgag cagtgaggtg agggctgccc gcctcctcct 2000
 ccgtcgctgc ccgctctggg gggatgccac ttgcctccag ctggccatgc 2050
 aagctgacgc ccgtgccttc tttgcccagg atgggggtaca gtctctgctg 2100
 acacagaagt ggtggggaga tatggccagc actacacca tctgggccct 2150
 ggttctcgcc ttcttttgc ctcactcat ctacaccgc ctcacacct 2200
 tcaggaaatc agaagaggag cccacacggg aggagctaga gtttgacatg 2250
 gatagtgtca ttaatgggga agggcctgtc gggacggcgg acccagccga 2300
 gaagacgccg ctgggggtcc cgcgccagtc gggccgtccg ggttgctgcg 2350
 ggggcccgtg cggggggcgc cgggtgcctac gccgctgggt ccacttctgg 2400
 ggcgcgccgg tgaccatctt catgggcaac gtggtcagct acctgctgtt 2450
 cctgctgctt ttctcgcggg tgctgctcgt ggatttccag ccggcgccgc 2500
 ccggctccct ggagctgctg ctctatttct gggctttcac gctgctgtgc 2550
 gaggaactgc gccagggcct gagcggaggc gggggcagcc tcgccagcgg 2600
 gggccccggg cctggccatg cctcactgag ccagcgctg cgctctacc 2650
 tcgccgacag ctggaaccag tgcgacctag tggctctcac ctgcttcctc 2700
 ctgggcgtgg gctgccggct gaccccggt ttgtaccacc tgggccgcac 2750
 tgcctctgc atcgacttca tggttttcac ggtgcggctg cttcacatct 2800
 tcacggtcaa caaacagctg gggcccaaga tcgtcatcgt gagcaagatg 2850
 atgaaggacg tgtttctctt cctcttcttc ctggcggtgt ggctggtagc 2900
 ctatggcgtg gccacggagg ggtcctgag gccacgggac agtgacttcc 2950
 caagtatcct gcgcgcgctc ttctaccgtc cctacctgca gatcttcggg 3000
 cagattcccc aggaggacat ggacgtggcc ctcattggag acagcaactg 3050
 ctgctcggag ccgggttct gggcacaccc tcctggggcc caggcgggca 3100
 cctgcgtctc ccagtatgcc aactggtgg tggctgctgt cctcgtcatc 3150
 ttctgctcg tggccaacat cctgctggtc aacttgcctc ttgccatgtt 3200
 cagttacaca ttcggaag tacagggcaa cagcgatctc tactggaagg 3250
 cgcagcgtaa ccgcctcatc cgggaattcc actctcggcc cgcgctggcc 3300
 ccgcccttta tcgtcatctc ccacttgcgc ctctgctca ggcaattgtg 3350
 caggcgaccc cggagccccc agccgtcctc cccggccctc gagcatttcc 3400

gggtttacct ttctaaggaa gccgagcgga agctgctaac gtgggaatcg 3450
 gtgcataagg agaactttct gctggcacgc gctagggaca agcgggagag 3500
 cgactccgag cgtctgaagc gcacgtccca gaaggtggac ttggcactga 3550
 aacagctggg acacatccgc gagtacgaac agcgccctgaa agtgctggag 3600
 cgggaggtcc agcagtgtag ccgcgtcctg ggggtgggtgg ccgaggccct 3650
 gagccgctct gccttgctgc cccaggtgg gccgccacc cctgacctgc 3700
 ctgggtccaa agactgagcc ctgctggcgg acttcaagga gaagcccca 3750
 caggggattt tgctcctaga gtaaggctca tctgggcctc ggcccccgca 3800
 cctggtggcc ttgtccttga ggtgagcccc atgtccatct gggccactgt 3850
 caggaccacc tttgggagtg tcacacctac aaaccacagc atgcccggct 3900
 cctcccagaa ccagtcaccag cctgggagga tcaaggcctg gatccccggc 3950
 cgttatccat ctggaggctg cagggtcctt ggggtaacag ggaccacaga 4000
 cccctcacca ctcacagatt cctcacactg gggaaataaa gccatttcag 4050
 aggaaaaaaa a 4061

<210> 44
 <211> 8035
 <212> DNA
 <213> Homo sapien

<400> 44
 cgataattga aaaccagat gtcccacagg atttcgggaa tcaagggtca 50
 acagtagagt ccctctgtga tgatgttgc tctgtactca ccgtcctgtg 100
 tgagaagctg caagccgcca taaatgacag ccagcagctg cagcttctct 150
 acctggagtg catcctgtct gtgtcagca gtcctcctc ctccatgcac 200
 ctgcacaggc gttcacgga cctgatctgg aaaaacctct gccctgctct 250
 catcgtgac ttggggaatc caattcatga caaaaccatc acctctgtc 300
 acaccagcag caccagtacc agcctggagt cggactctgc gtctccggga 350
 gtgtctgacc acggccgagg atcaggctgc tcctgcaactg cgccggccct 400
 gagcggacct gtggctcgga ctatctatta catcgcagcc gagctgggtcc 450
 ggctgggtgg gtctgtggac tccatgaagc ccgtgctcca gtccctctac 500
 caccgagtgc tgctctaccc cccaccccag caccgggtgg aagccatcaa 550
 aataatgaaa gagatacttg ggagcccaca gcgtctctgt gacttggcag 600

gacccagctc cactgaatca gagtccagaa aaagatcaat ttcaaaaaga 650
aagtctcatc tggatctcct caaactcatc atggatggca tgaccgaagc 700
atgcatcaag ggtggcatcg aagcttgcta tgcagccgtg tcctgtgtct 750
gcaccttgct ggggtgccctg gatgagctca gccaggggaa gggcttgagc 800
gaaggtcagg tgcaactgct gcttctgcgc cttgaggagc tgaaggatgg 850
ggctgagtgg agccgagatt ccatggagat caatgaggct gacttccgct 900
ggcagcggcg agtgctgtcc tcagaacaca cgccgtggga gtcagggaac 950
gagaggagcc ttgacatcag catcagtgtc accacagaca caggccagac 1000
cactctcgag ggagagttgg gtcagactac acccgaggac cattcgggaa 1050
accacaagaa cagtctcaag tcgccagcca tcccagaggg taaggagacg 1100
ctgagcaaag tattggaaac agaggcggta gaccagccag atgtcgtgca 1150
gagaagccac acggtccctt accctgacat aactaacttc ctgtcagtag 1200
actgcaggac aaggctcctat ggatctaggt atagtgagag caattttagc 1250
gttgatgacc aagaccttct taggacagag tttgattcct gtgatcagta 1300
ctctatggca gcagaaaagg actcgggcag gtccgacgtg tcagacattg 1350
ggtcggacaa ctgttcaacta gccgatgaag agcagacacc ccgggactgc 1400
ctaggccacc ggtccctgcg aactgcgcgc ctgtctctaa aactgctgaa 1450
gaaccaggag gcggatcagc acagcgccag gctgttcata cagtccctgg 1500
aaggcctcct ccctcggtct ctgtctctct ccaatgtaga ggagggtggac 1550
accgctctgc agaactttgc ctctactttc tgctcaggca tgatgcactc 1600
tcctggcttt gacgggaata gcagcctcag cttccagatg ctgatgaacg 1650
cagacagcct ctacacagct gcacactgcg ccctgctcct caacctgaag 1700
ctctcccacg gtgactacta caggaagcgg ccgaccctgg cgccaggcgt 1750
gatgaaggac ttcatgaagc aggtgcagac cagcggcgtg ctgatggtct 1800
tctctcagge ctggattgag gagctctacc atcaggtgct cgacaggaac 1850
atgcttgag aggctggcta ttggggcagc ccagaagata acagccttcc 1900
cctcatcaca atgctgaccg atattgacgg cttagagagc agtgccattg 1950
gtggccagct gatggcctcg gctgctacag agtctccttt cgcccagagc 2000
aggagaattg atgactccac agtggcaggc gtggcatttg ctcgctatat 2050

tctggtgggc tgctggaaga acttgatcga tactttatca accccactga 2100
ctggtcgaat ggcgggggagc tccaaagggc tggccttcat tctgggagct 2150
gaaggcatca aagagcagaa ccagaaggag cgggacgcca tctgcatgag 2200
cctcgacggg ctgcggaaaag ccgcacggct gagctgcgct ctaggcggtg 2250
ctgctaactg cgccctcagcc cttgcccaga tggcagctgc ctctgtgtc 2300
caagaagaaa aagaagagag ggaggcccaa gaaccagtg atgcatcac 2350
acaagtgaat ctaaaagtgg agcagaaact ggagcagatt gggaaggtgc 2400
agggggtgtg gctgcacact gccacgtct tgtgcatgga ggccatctc 2450
agcgtaggcc tggagatggg aagccacaac ccgactgct ggccacacgt 2500
gttcaggggtg tgtgaatacg tgggcaccct ggagcacaac cacttcagcg 2550
atggtgcctc gcagccccct ctgacctca gccagcccca gaaggccact 2600
ggaagcgctg gcctccttgg ggaccccgag tgtgagggct cggccccga 2650
gcacagcccg gagcaggggc gctccctgag cagggccct gtcgtccagc 2700
ccctgtccat ccaggacctc gtccgggaag gcagccgggg tcgggctcc 2750
gacttcgcg gcgggagcct catgagcggg agcagcgcg ccaaggtggt 2800
gctcaccctc tccacgcaag ccgacaggct ctttgaagat gctacggata 2850
agttgaacct catggccttg ggaggttttc tttaccagct gaagaaagca 2900
tcgcagtctc agcttttcca ttctgttaca gatacagttg attactctct 2950
ggcaatgcca ggagaagtta aatccactca agaccgaaaa agcgccctcc 3000
acctgttccg cctggggaat gccatgctga ggattgtgcg gagcaaagca 3050
cggccctgc tccacgtgat gcgctgctgg agccttgtgg cccacacct 3100
ggtggaggct gcttgccata aggaaagaca tgtgtctcag aaggctgttt 3150
ccttcatcca tgacatactg acagaagtcc tctactgactg gaatgagcca 3200
cctcatttcc acttcaatga agcactcttc cgaccttctg agcgattat 3250
gcagctggaa ttgtgtgatg aggacgtcca agaccagggt gtcacatcca 3300
ttggtgagct ggttgaagtg tgttccacgc agatccagtc gggatggaga 3350
cccttgttca gtgccttggg aacagtgcac ggcggaaca agtcagagat 3400
gaaggagtac ctggttggtg actactccat gggaaaaggc caagctccag 3450
tgtttgatgt atttgaagct tttctcaata ctgacaacat ccaggctctt 3500

gctaatagcag ccactagcta catcatgtgc cttatgaagt ttgtcaaagg 3550
actggggggag gtggactgta aagagattgg agactgtgcc ccagcaccgc 3600
gagccccgtc cacagacctg tgccctcccg ccttgatta cctcaggcgc 3650
tgctctcagt tattggccaa aatctacaaa atgcccttga agccaatatt 3700
ccttagtggg agacttgccg gcttgccctg aagacttcag gaacagtcag 3750
ccagcagtga ggatggaatt gaatcagtcc tgtctgattt tgatgatgac 3800
accgggtctga tagaagtctg gataatcctg ctggagcagc tgacagcggc 3850
tgtgtccaat tgtccacggc agcaccaacc accaactctg gatttactct 3900
ttgagctggt gagagatgtg acgaaaacac caggaccagg gtttggatc 3950
tatgcagtgg ttcacctcct ccttctctgt atgtccgttt ggctccgcgc 4000
gagccataaa gaccattcct actgggatat ggccctctgcc aatttcaagc 4050
acgctattgg tctgtcctgt gagctgggtg tggagcacat tcaaagcttt 4100
ctacattcag atatcaggta cgagagcatg atcaatacca tgctgaagga 4150
cctctttgag ttgctggtcg cctgtgtggc caagcccact gaaaccatct 4200
ccagagtggg ctgctcctgt attagatacg tccttgtgac agcggggcct 4250
gtgttcactg aggagatgtg gaggcttgcc tgctgtgccc tgcaagatgc 4300
gttctctgcc aactcaagc cagtgaagga cctgctgggc tgcttccaca 4350
gcggcacgga gagcttcagc ggggaaggct gccagggtgc agtggcggcc 4400
cgtctcctcct cccaagtgc cgaggccgag tactggcgca tccgagccat 4450
ggcccagcag gtgtttatgc tggacacca gtgctacca aagacaccaa 4500
acaactttga ccaogctcag tcctgccagc tcattattga gctgcctcct 4550
gatgaaaaac caaatggaca caccaagaaa agcgtgtctt tcagggaat 4600
tgtggtgagc ctgctgtctc atcagggtgt actccagaac ttatatgaca 4650
tcttggttaga agagtttgct aaaggccct ctctggaga ggaaaagacg 4700
atacaagtgc cagaagccaa gctggctggc ttctcagat acatctctat 4750
gcagaacttg gcagtcatat tcgacctgct gctggactct tataggactg 4800
ccaggaggtt tgacaccagc cccgggctga agtgccctgct gaagaaagtg 4850
tctggcatcg ggggcgcgc caacctctac cgccagtctg cgatgagctt 4900
taacatttat ttccacgccc tgggtgtgtg tggtctcacc aatcaagaaa 4950

ccatcacggc cgagcaagtg aagaaggtcc tttttgagga cgacgagaga 5000
 agcacggatt cttcccagca gtgttcatct gaggatgaag acatctttga 5050
 ggaaaccgcc caggtcagcc ccccgagagg caaggagaag agacagtggc 5100
 gggcacggat gcccttgctc agcgtccagc ctgtcagcaa cgcagattgg 5150
 gtgtggctgg tcaagaggct gcacaagctg tgcattggaac tgtgcaacaa 5200
 ctacatccag atgcacttgg acctggagaa ctgtatggag gagcctccca 5250
 ttttcaaggg cgacccttcc ttcatcctgc cctccttcca gtccgagtca 5300
 tccaccccat ccaccggggg cttctctggg aaagaaaccc cttccgagga 5350
 tgacagaagc cagtcccggg agcacatggg cgagtccctg agcctgaagg 5400
 ccggtggtgg ggacctgctg ctgcccccca gcccacaaagt ggagaagaag 5450
 gatcccagcc ggaagaagga gtggtgggag aatgccccga acaaaatcta 5500
 caccatggca gccgacaaga ccatttcaaa gttgatgacc gaatacaaaa 5550
 agaggaaaca gcagcacaac ctgtccgctg tccccaaaga ggtcaaagtg 5600
 gagaagaaag gagagccact ggggtcccagg ggccaggact ccccgtgct 5650
 tcagcgtccc cagcacttga tggaccaagg gcaaatgcgg cattccttca 5700
 gcgcaggccc cgagctgctg cgacaggaca agaggccccg ctcaggctcc 5750
 accgggagct ccctcagtgt ctcggtgaga gacgcagaag cacagatcca 5800
 ggcattggacc aacatggtgc taacagttct caatcagatt cagattctcc 5850
 cagaccagac cttcacggcc ctccagcccc cagtgttccc gtgcatcagt 5900
 cagctgacct gtcacgtgac cgacatcaga gttcgccagg ctgtgagggg 5950
 gtggctgggc aggggtgggc gtgtctatga catcattgtg tagccgactc 6000
 ctgttctact ctcccaccaa ataacagtag tgagggttag agtctgcca 6050
 atacagctgt tgcattttcc ccaccactag cccacttaa actactacta 6100
 ctgtctcaga gaacagtgtt tcctaattga aaaagccttt ccaaccactg 6150
 atcagcattg gggccatact aaggtttgta tctagatgac acaaacgata 6200
 ttctgatttt gcacattatt atagaagaat ctataatcct tgatatgttt 6250
 ctaactcttg aagtatatct cccagtgtt ttgcttacag tgttgtcccc 6300
 aaatgggtca ttttcaagga ttactcattt gaaaacacta tattgatcca 6350
 tttgatccat catttaaaaa ataaatacaa ttcctaaggc aatatctgct 6400

ggtaagtcaa gctgataaac actcagacat ctagtaccag ggattattaa 6450
 ttggaggaag atttatgggt atgggtctgg ctgggaagaa gacaactata 6500
 aatacatatt cttgggtgtc ataatacaaga aagaggtgac ttctgttgta 6550
 aaataatcca gaacacttca aaattattcc taaatcatta agattttcag 6600
 gtattcacca atttcccat gtaaggtact gtgttgtaacc tttatttctg 6650
 tatttctaaa agaagaaagt tctttcctag cagggtttga agtctgtggc 6700
 ttatcagcct gtgacacaga gtaccacagtg aaagtggctg gtacgtagat 6750
 tgtcaagaga cataagaccg accagccacc ctggctgttc ttgtggtgtt 6800
 tgtttccatc cccaaggcaa acaaggaaaag gaaaggaaaag aagaaaaggt 6850
 gccttagtcc tttgttgac ttccatttcc atgccccaca attgtctgaa 6900
 cataaggtat agcatttgggt ttttaagaaa acaaacatt aagacgcaac 6950
 tcattttata tcaacacgct tggaggaaaag ggactcaggg aaggagcag 7000
 ggagtgtggg gtggggatgg attatgatga aatcattttc aatcttaaaa 7050
 tataatacaa caatcttgca aaattatggg gtcagttaca caagctctag 7100
 tctcaaaatg aaagtaatgg agaaagacac tgaaatttag aaaattttgt 7150
 cgatttaaaa tatttctcct atctaccaag taaagttacc ctatgtttga 7200
 tgtctttgca ttcagaccaa tatttcaggt ggatatttct aagtattact 7250
 agaaaatacg tttgaaagct ttatcttatt atttacagta tttttatatt 7300
 tcttacatta tctaatagat tgaaaactcc tcaatcaagc ttacttacac 7350
 acattctaca gagttattta aggcatacat tataatctcc cagccccatt 7400
 cataatgaat aagtcaccct ttaaataata gacacaaatt ctacagtatt 7450
 gaaataagga tttaaagggg tatttgtaaa ctttgcctc cttgagaaat 7500
 atggaactac cttagaggtt aagaggaagg cagtgttctg acttcttttag 7550
 gtgatctgaa aaaaacaccc ttatcatcca gtgtaccatc tagagatcac 7600
 cacagaatcc atttttttcc cagttccaca aaacactctg tttgccttca 7650
 gtttttactc actagacaat aattcaagtt tagaaacagg taatcagcta 7700
 tttgatctta aaaggcaatg aattgttggg atatcagtga actatgttgt 7750
 atacttttga atttttacat tttataaatg gaattgaaag ttggataact 7800
 gcttttttta aattttccaa cagaagtaac accacagttg ctttgtttct 7850

ttttatagct tacctgaggt tcagttcttc tttgtgaacc tgtgagtact 7900
 ccacagttta ctgggggaaa aggcttcagt aaagcagagg ctagaattac 7950
 agtatattata catagcaact tttcataaag tagaaaaatt caaaggaagc 8000
 tgtctcaatt tgagaatacc agctgggcac ggtcg 8035

<210> 45
 <211> 3136
 <212> DNA
 <213> Homo sapien

<400> 45
 cagagaggct gtatttcagt gcagcctgcc agacctcttc tggaggaaga 50
 ctggacaaag ggggtcacac attccttcca tacggttgag cctctacctg 100
 cctgggtgctg gtcacagttc agcttcttca tgatgggtgga tcccaatggc 150
 aatgaatcca gtgctacata cttcatccta ataggcctcc ctggttttaga 200
 agaggctcag ttctgggttg ccttccatt gtgctccctc taccttattg 250
 ctgtgctagg taacttgaca atcatctaca ttgtgcggaac tgagcacagc 300
 ctgcatgagc ccatgtatat atttctttgc atgctttcag gcattgacat 350
 cctcatctcc acctcatcca tgcccaaat gctggccatc ttctggttca 400
 attccactac catccagttt gatgcttgtc tgctacagat ttttgccatc 450
 cactccttat ctggcatgga atccacagtg ctgctggcca tggcttttga 500
 ccgctatgtg gccatctgtc acccactgag ccatgccaca gtacttacgt 550
 tgctctgtgt caccaaaatt ggtgtggctg ctgtgggtgag gggggctgca 600
 ctgatggcac cccttctgt cttcatcaag cagctgccct tctgcccgtc 650
 caatatectt tccattcct actgctaca ccaagatgtc atgaagctgg 700
 cctgtgatga tatccgggtc aatgtcgtct atggccttat cgtcatcatc 750
 tccgccattg gcttggaact acttctcatc tcttctcat atctgcttat 800
 tcttaagact gtgttgggtc tgacacgtga agcccaggcc aaggcatttg 850
 gcacttgctg ctctcatgtg tgtgctgtgt tcatattcta tgtaccttc 900
 attggattgt ccatgggtgca tcgcttttagc aagcggcgtg actctccgct 950
 gcccgctatc ttggccaata tctatctgct ggttctcct gtgctcaacc 1000
 caattgtcta tggagtgaag acaaaggaga ttcgacagcg catccttoga 1050
 cttttccatg tggccacaca cgcttcagag ccctaggtgt cagtgatcaa 1100

acttcttttc cattcagagt cctctgattc agattttaat gttaacattt 1150
 tggaagacag tattcagaaa aaaaatttcc ttaataaaaa atacaactca 1200
 gatccttcaa atatgaaact ggttggggaa tctccatttt ttcaatatta 1250
 ttttcttctt tgttttcttg ctacataata ttattaatac cctgactagg 1300
 ttgtggttgg agggttatta cttttcattt taccatgcag tccaaatcta 1350
 aactgcttct actgatgggt tacagcattc tgagataaga atggtacatc 1400
 tagagaacat ttgccaaagg cctaagcacg gcaaaggaaa ataaacacag 1450
 aatataataa aatgagataa tctagcttaa aactataact tcctcttcag 1500
 aactcccaac cacattggat ctacagaaaa tgctgtcttc aaaatgactt 1550
 ctacagagaa gaaataattt ttctcttga cactagcact taaggggaag 1600
 attggaagta aagccttgaa aagagtacat ttacctacgt taatgaaagt 1650
 tgacacactg ttctgagagt tttcacagca tatggaccct gtttttctta 1700
 ttttaatttc ttatcaaccc ttttaattagg caaagatatt attagtaccc 1750
 tcattgtagc catgggaaaa ttgatgttca gtggggatca gtgaattaaa 1800
 tggggtcata caagtataaa aattaaaaaa aaaaaagact tcatgcccaa 1850
 tctcatatga tgtggaagaa ctgtagaga gaccaacagg gtagtgggtt 1900
 agagatttcc agagtcttac attttctaga ggaggtattt aatttcttct 1950
 cactcatcca gtgttgatt taggaatttc ctggcaacag aactcatggc 2000
 tttaatccca ctagctattg cttattgtcc tggccaatt gcccaattacc 2050
 tgtgtcttgg aagaagtgat ttctaggttc accattatgg aagattctta 2100
 ttcagaaagt ctgcataggg cttatagcaa gttatttatt tttaaaagtt 2150
 ccataggtga ttctgatagg cagtgaggtt agggagccac cagttatgat 2200
 ggaagtatg gaatggcagg tottgaagat aacattggcc ttttgagtgt 2250
 gactcgtagc tggaaagtga gggaaatcttc aggaccatgc tttatttggg 2300
 gctttgtgca gtatggaaca gggactttga gaccaggaaa gcaatctgac 2350
 ttaggcattg gaatcaggca tttttgcttc tgaggggcta ttaccaaggg 2400
 ttaataggtt tcatcttcaa caggatatga caacagtgtt aaccaagaaa 2450
 ctcaaattac aaatactaaa acatgtgatc atatatgtgg taagtttcat 2500
 tttcttttcc aatctcagg ttccctgata tggattccta taacatgctt 2550

tcatccccctt ttgtaatgga tatcatatatt ggaaatgcct atttaataact 2600
 tgtatttgct gctggactgt aagcccatga gggcactgtt tattattgaa 2650
 tgtcatctct gttcatcatt gactgctctt tgctcatcat tgaatcccc 2700
 agcaaagtgc ctagaacata atagtgttta tgcttgacac cgggtattttt 2750
 tcatcaaacc tgattccttc tgcctgaac acatagccag gcaattttcc 2800
 agccttcttt gagttgggta ttattaaatt ctggccatta cttccaatgt 2850
 gagtgggaagt gacatgtgca atttctatac ctggctcata aaaccctccc 2900
 atgtgcagcc tttcatgttg acattaaatg tgacttggga agctatgtgt 2950
 tacacagagt aaatcaccag aagcctggat ttctgaaaaa actgtgcaga 3000
 gccaaacctc tgtcatttgc aactcccact tgtatttgta cgaggcagtt 3050
 ggataagtga aaaataaagt actattgtgt caagaaaaaa aaaaaaaaaa 3100
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 3136

<210> 46
 <211> 491
 <212> DNA
 <213> Homo sapien

<220>
 <221> Unsure
 <222> 434-435, 450
 <223> Unknown base

<400> 46
 agcaccttgg cacagctgaa gcagaggaac acgctgaagg atggatatcat 50
 catgatccag acgctgctga tcactctctt catcatcgtg cctatcttcc 100
 tgctgctgga caaggatgac agcaaggctg gcatggagga agatcacacc 150
 tacgagggcc tggacattga ccagacagcc acctatgagg acatagtgac 200
 gctgcggaca ggggaagtga agtggctctgt aggtgagcac ccaggccagg 250
 agtgagagcc aggtcgcccc atgacctggg tgcaggctcc ctggcctcag 300
 tgactgcttc ggagctgcct ggctcatggc ccaaccctt tcccggaccc 350
 cccagctggc ctctgaagct ggcccaccag agctgccatt tgtctcacc 400
 ctggtgtcca gctcttgcca aagggcctgg agtnnaagga caacaggcan 450
 cacttgaggg gagttctctg gggatggacg ggaccacct t 491

<210> 47
 <211> 1650
 <212> DNA

<213> Homo sapien

<400> 47

caggaaggtt cctctcccag tggccatggg tagcaacagt gggcaggctg 50
gccgccacat ctataaatcc ctagctgatg atggcccctt tgactctgtg 100
gagccgccta aaagaccac cagcagactc atcatgcaca gcatggccat 150
gttcggaaga gagttctgct acgcggtgga ggcagcgtat gtgaccccag 200
tcctgtctcag cgtaggtctg cccagcagcc tgtacagcat tgtgtgggtc 250
ctcagcccca tcctgggatt cctgctgcag cccgtggctg gatcggccag 300
cgaccactgc cgggtccagggt ggggccgccg gagaccctac atcctcacc 350
tgaggagtcat gatgctcgtg ggcattggctc tgtacctcaa tggggctact 400
gttgtagcag ctttgattgc taacccaagg aggaagctgg tttgggccat 450
aagtgtcacc atgatagggtg tcgttctctt tgattttgtt gccgacttca 500
ttgatgggcc catcaaagcc tacttatttg atgtctgctc ccatcaggac 550
aaggagaagg gcctccacta ccatgccctc ttcacagggt ttggagggtg 600
cctgggttac cttttgggtg ctatagactg ggcccatctg gagctgggaa 650
gactgttggg tacagaattc caggtcattg tcttcttctc tgcattgggtg 700
ctcactttgt gttttactgt tcatctgtgc agtatctctg aagccccact 750
tacagaggtt gcaaagggca tccccccaca gcaaaccct caggaccctc 800
cattgtcacc agatggaatg tacgagtatg gttctatcga gaaagttaa 850
aatggttacg taaatccaga gctggcaatg caggagcaa aaaacaaaaa 900
tcatgctgaa cagactcgca gggcaatgac attaaagtca ctgctgagag 950
cactggtgaa catgcctcct cactaccgt acctttgcat cagccacctc 1000
attggatgga cggccttctt gtccaacatg ctgttcttca cagatttcat 1050
gggccagatt gtgtaccgcg gggatcccta tagtgacac aactccacag 1100
agtttctcat ctacgaaaga ggagtcgagg ttggatgttg gggcttctgc 1150
atcaactccg tgttttctc actttattct tactttcaga aagttttggt 1200
atcctacatt ggattaaagg gtctttactt cacgggatat ttgctgtttg 1250
gcctggggac gggatttatt gggctcttcc cgaatgtcta ctccacctg 1300
gtcctgtgca gcctgtttgg tgtaatgtcc agcaccctgt aactgtgcc 1350
ctttaacctc attactgagt accaccgca ggaagaaaag gagaggcagc 1400

aggccccagg aggggaccca gacaacagcg tgagagggaa gggcatggac 1450
 tgcgccaccc tcacatgcat ggtgcagctg gctcagatcc tggtcggagg 1500
 tggcctgggc tttctggta acacagccgg gaccgttgtc gtcgtggtga 1550
 tcacagcgtc tgcgggtggca ctgataggct gttgctttgt cgctctcttt 1600
 gttagatatg tggattaggt caataaagag acaatgaccc taaaaaaaaa 1650

<210> 48
 <211> 3462
 <212> DNA
 <213> Homo sapien

<400> 48
 gaatcatcca cgcacctgca gctctgctga gagagtgcaa gccgtggggg 50
 ttttgagctc atcttcatca ttcatatgag gaaataagtg gtaaaatcct 100
 tggaaataca atgagactca tcagaaacat ttacatat tttagtattg 150
 ttatgacagc agaggggtgat gctccagagc tgccagaaga aagggaactg 200
 atgaccaact gctccaacat gtctctaaga aagggtcccg cagacttgac 250
 cccagccaca acgacactgg atttatccta taacctcctt tttcaactcc 300
 agagttcaga ttttcattct gtctccaaac tgagagtttt gattctatgc 350
 cataacagaa ttcaacagct ggatctcaa acctttgaat tcaacaagga 400
 gttaagatat ttagatttgt etaataacag actgaagagt gtaacttggg 450
 atttactggc aggtctcagg tatttagatc tttcttttaa tgactttgac 500
 accatgcta tctgtgagga agctggcaac atgtcacacc tggaaatcct 550
 aggtttgagt ggggcaaaaa tacaaaaatc agatttcag aaaattgctc 600
 atctgcatct aaatactgtc ttcttaggat tcagaactct tctcattat 650
 gaagaaggta gctgccccat cttaaacaca acaaaactgc acattgtttt 700
 accaatggac acaaatctct ggggtctttt gcgtgatgga atcaagactt 750
 caaaaatatt agaaatgaca aatatagatg gcaaaagcca atttgtaagt 800
 tatgaaatgc aacgaaatct tagtttagaa aatgctaaga catcggttct 850
 attgcttaat aaagttgatt tactctggga cgaccttttc cttatcttac 900
 aatttgtttg gcatacatca gtggaacact ttcagatccg aaatgtgact 950
 tttggtggtg aggcttatct tgaccacaat tcatttgact actcaaatac 1000
 tgtaatgaga actataaaat tggagcatgt acatttcaga gtgttttaca 1050

ttcaacagga taaaatctat ttgcttttga ccaaaatgga catagaaaac 1100
 ctgacaatat caaatgcaca aatgccacac atgcttttcc cgaattatcc 1150
 tacgaaattc caatatttaa attttgccaa taatatctta acagacgagt 1200
 tgtttaaaag aactatccaa ctgcctcact tgaaaactct cattttgaat 1250
 ggcaataaac tggagacact ttcttttagta agttgctttg ctaacaacac 1300
 acccttggaa cacttggatc tgagtcaaaa tctattacaa cataaaaatg 1350
 atgaaaattg ctcatggcca gaaactgtgg tcaatatgaa tctgtcatac 1400
 aataaattgt ctgattctgt cttcaggtgc ttgccccaaa gtattcaaat 1450
 acttgacctt aataataacc aaatccaaac tgtacctaaa gagactattc 1500
 atctgatggc cttacgagaa ctaaattattg catttaattt tctaactgat 1550
 ctccctggat gcagtcattt cagtagactt tcagttctga acattgaaat 1600
 gaacttcatt ctacagccat ctctggattt tgttcagagc tgccaggaag 1650
 ttaaaactct aaatgcggga agaaatccat tccggtgtac ctgtgaatta 1700
 aaaaatttca ttcagcttga aacatattca gaggtcatga tggttggatg 1750
 gtcagattca tacacctgtg aatacccttt aaacctaaagg ggaactaggt 1800
 taaaagacgt tcatctccac gaattatctt gcaacacagc tctgttgatt 1850
 gtcaccattg tggttattat gctagttctg gggttggctg tggccttctg 1900
 ctgtctccac tttgatctgc cctggtatct caggatgcta ggtcaatgca 1950
 cacaacatg gcacaggggtt aggaaaacaa cccaagaaca actcaagaga 2000
 aatgtccgat tccacgcatt tatttcatac agtgaacatg attctctgtg 2050
 ggtgaagaat gaattgatcc ccaatctaga gaaggaagat ggttctatct 2100
 tgatttgctt ttatgaaagc tactttgacc ctggcaaaag cattagtga 2150
 aatattgtaa gcttcattga gaaaagctat aagtccatct ttgttttgc 2200
 tcccaacttt gtccagaatg agtggtgcca ttatgaattc tactttgccc 2250
 accacaatct cttccatgaa aattctgate atataattct tatcttactg 2300
 gaaccattc cattctattg cattcccacc aggtatcata aactgaaagc 2350
 tctcctggaa aaaaaagcat acttggaaatg gcccaaggat aggcgtaaat 2400
 gtgggctttt ctgggcaaac cttcgagctg ctattaatgt taatgtatta 2450
 gccaccagag aaatgtatga actgcagaca ttcacagagt taaatgaaga 2500

gtctcgaggt tctacaatct ctctgatgag aacagattgt ctataaaatc 2550
 ccacagtcct tgggaagttg gggaccacat acactggttg gatgtacatt 2600
 gatacaacct ttatgatggc aatttgacaa tatttattaa aataaaaaat 2650
 ggttattccc ttcatatcag tttctagaag gatttctaag aatgtatcct 2700
 atagaaacac cttcacaagt ttataagggc ttatggaaaa aggtgttcat 2750
 cccaggattg tttataatca tgaaaaatgt ggccagggtgc agtgggtcac 2800
 tcttgtaatc ccagcactat gggaggccaa ggtgggtgac ccacgaggtc 2850
 aagagatgga gaccatcctg gccaacatgg tgaaaccctg tctctactaa 2900
 aaatacaaaa attagctggg cgtgatgggtg cacgcctgta gtcccagcta 2950
 cttgggagggc tgaggcagga gaatcgcttg aaccggggag gtggcagttg 3000
 cagtgaagctg agatcgagcc actgcactcc agcctggtga cagagcgaga 3050
 ctccatctca aaaaaagaa aaaaaaaaaa gaaaaaatg gaaaacatcc 3100
 tcatggccac aaaataaggt ctaattcaat aaattatagt acattaatgt 3150
 aatataatat tacatgccac taaaaagaat aaggtagctg tatatttcct 3200
 ggtatggaaa aaacatatta atatgttata aactattagg ttggtgcaaa 3250
 actaattgtg gtttttgcca ttgaaatggc attgaaataa aagtgtaaag 3300
 aaatctatac cagatgtagt aacagtgggtt tgggtctggg aggttggatt 3350
 acaggagca tttgatttct atgttgtgta tttctataat gtttgaattg 3400
 tttagaatga atctgtatct cttttataag tagaaaaaaa ataaagatag 3450
 tttttacagc ct 3462

<210> 49

<211> 4492

<212> DNA

<213> Homo sapien

<400> 49

gtcacctgga tgggtgtaaag gaaacaagag acaggaacag agccccctcat 50
 ctcacctctg ggctaccata cagaaaagca gaattggcag gaactgaaaa 100
 tgactaggaa gaggacatac tgggtgcccc actcttctgg tggcctcgtg 150
 aatcgtggca tcgacatagg cgatgacatg gtttcaggac ttatttataa 200
 aacctatact ctccaagatg gcccctggag tcagcaagag agaaatcctg 250
 aggctccagg gagggcagct gtcccaccgt gggggaagta tgatgctgcc 300

ttgagaacca tgattccctt ccgtcccaag ccgaggtttc ctgccccca 350
 gcccctggac aatgctggcc tgttctccta cctcaccgtg tcatgggtca 400
 ccccgctcat gatccaaagc ttacggagtc gcttagatga gaacaccatc 450
 cctccactgt cagtccatga tgcctcagac aaaaatgtcc aaaggcttca 500
 ccgccttttg gaagaagaag tctcaaggcg agggattgaa aaagcttcag 550
 tgcttctggt gatgctgagg ttccagagaa caaggttgat tttcgatgca 600
 cttctgggca tctgcttctg cattgccagt gtactcgggc caatattgat 650
 tataccaaag atcctggaat attcagaaga gcagttgggg aatgttgtcc 700
 atggagtggt actctgcttt gccctttttc tctccgaatg tgtgaagtct 750
 ctgagtttct cctccagttg gatcatcaac caacgcacag ccatcaggtt 800
 ccgagcagct gtttctcct ttgcctttga gaagctcatc caatttaagt 850
 ctgtaataca catcacctca ggagaggcca tcagcttctt caccggtgat 900
 gtaaaactacc tgtttgaagg ggtgtgctat ggacccctag tactgatcac 950
 ctgcgcacgc ctggtcatct gcagcatttc ttctacttc attattggat 1000
 aactgcatt tattgccatc ttatgctatc ccctgggtttt cccactggag 1050
 gtattcatga caagaatggc tgtgaaggct cagcatcaca catctgaggt 1100
 cagcgaccag cgcacccgtg tgaccagtga agttctcact tgcattaagc 1150
 tgattaaaat gtacacatgg gagaaacat ttgcaaaaat cattgaagac 1200
 ctaagaagga aggaaaggaa gctattggag aagtgcgggc ttgtccagag 1250
 cctgacaagt ataaccttgt tcatcatccc cgcagtggcc acagcggctc 1300
 gggttctcat ccacacatcc ttaaagctga aactcacagc gtcaatggcc 1350
 ttcagcatgc tagcctcctt gaatctcctt cggctgtcag tgttctttgt 1400
 gcctattgca gtcaaaggtc tcacgaattc caagtctgca gtgatgaggt 1450
 tcaagaagtt tttctccag gagagccctg tttctatgt ccagacatta 1500
 caagaccca gcaaagctct ggtctttgag gaggccacct tgtcatggca 1550
 acagacctgt cccgggacgc tcaatggggc actggagctg gagaggaacg 1600
 ggcattcttc tgaggggatg accaggccta gagatgcctt cgggcccagag 1650
 gaagaaggga acagcctggg ccagagttg cacaagatca acctggtggt 1700
 gtccaagggg atgatgttag gggctctgcg caacacgggg agtggttaaga 1750

gcagcctggt gtcagccatc ctggaggaga tgcacttgct cgagggctcg 1800
gtgggggtgc aggggaagcct ggcctatgtc cccacagcagg cctggatcgt 1850
cagcgggaac atcagggaga acatcctcat gggaggcgca tatgacaagg 1900
cccgatacct ccagggtgctc cactgctgct ccctgaatcg ggacctggaa 1950
cttctgccct ttggagacat gacagagatt ggagagcggg gccccaacct 2000
ctctgggggg cagaaacaga ggatcagcct ggcccgcgcc gtctattccg 2050
accgtcagat ctacctgctg gacgaccccc tgtctgctgt ggacgccac 2100
gtggggaagc acatttttga ggagtgcatt aagaagacac tcagggggaa 2150
gacggctgctc cagggtgaccc accagctgca gtacttagaa ttttgtggcc 2200
aggtcatttt gttggaaaat gggaaaatct gtgaaaatgg aactcacagt 2250
gagttaatgc agaaaaagg gaaatatgcc caacttatcc agaagatgca 2300
caaggaagcc acttcggaca tgttgcagga cacagcaaag atagcagaga 2350
agccaaaggt agaaagtcag gctctggcca cctccctgga agagtctctc 2400
aacggaaatg ctgtgccgga gcatcagctc acacaggagg aggagatgga 2450
agaaggctcc ttgagttgga ggggtctacca ccactacatc caggcagctg 2500
gaggttacat ggtctcttgc ataattttct tctttgtggt gctgacgctc 2550
ttcttaacga tcttcagctt ctggtggctg agctactggt tggagcaggg 2600
ctcggggacc aatagcagcc gagagagcaa tggaaccatg gcagacctgg 2650
gcaacattgc agacaatcct caactgtcct tctaccagct ggtgtacggg 2700
ctcaacgccc tgctcctcat ctgtgtgggg gtctgtcctc cagggatatt 2750
caccaaggct acgaggaagg catccacggc cctgcacaac aagctcttca 2800
acaaggtttt ccgctgcccc atgagtttct ttgacaccat cccaataggc 2850
cggcttttga actgcttcgc aggggacttg gaacagctgg accagctctt 2900
gcccatcttt tcagagcagt tcttggtcct gtccttaatg gtgacgccg 2950
tctgttgat tgtcagtgtg ctgtctccat atatcctgtt aatgggagcc 3000
ataatcatgg ttatttgctt catttattat atgatgttca aggaggccat 3050
cgggtgtgtc aagagactgg agaactatag ccggtctcct ttattctccc 3100
acatcctcaa ttctctgcaa ggctgagct ccatccatgt ctatggaaaa 3150
actgaagact tcatcagcca gtttaagagg ctgactgatg cgcagaataa 3200

ctacctgctg ttgtttctat cttccacacg atggatggca ttgaggctgg 3250
agatcatgac caaccttggtg accttggccg ttgccctggt cgtggcctttt 3300
ggcatttctt cccccctta ctccttttaa gtcattggctg tcaacatcgt 3350
gctgcagctg gcgtccagct tccaggccac tgcccggatt ggcttggaga 3400
cagaggcaca gttcacggct gtagagagga tactgcagta catgaagatg 3450
tgtgtctcgg aagctccttt acacatggaa ggcacaagtt gtccccaggg 3500
gtggccacag catggggaaa tcatatttca ggattatcac atgaaataca 3550
gagacaacac acccaccgtg cttcacggca tcaacctgac catccgcggc 3600
cacgaagtgg tgggcatcgt gggaaggacg ggctctggga agtcctcctt 3650
gggcatggct ctcttcgcc tggtggagcc catggcaggc cggattctca 3700
ttgacggcgt ggacatttgc agcatcggcc tggaggactt gcggtccaag 3750
ctctcagtga tccctcaaga tccagtgtg ctctcaggaa ccatcagatt 3800
caacctagat ccttttgacc gtcacaccga ccagcagatc tgggatgcct 3850
tggagaggac attcctgacc aaggccatct caaagttccc caaaaagctg 3900
catacagatg tgggtggaaaa cgggtggaaac ttctctgtgg gggagaggca 3950
gctgctctgc attgccaggg ctgtgcttcg caactccaag atcatcctta 4000
tcgatgaagc cacagcctcc attgacatgg agacagacac cctgatccag 4050
cgcacaatcc gtgaagcctt ccagggtgc accgtgctcg tcattgcca 4100
ccgtgtcacc actgtgtga actgtgaccg catcctgggt atgggcaatg 4150
ggaaggtggt agaatttgat cggccggagg tactgcggaa gaagcctggg 4200
tcattgttcg cagccctcat ggccacagcc acttcttcac tgagataagg 4250
agatgtggag acttcatgga ggctggcagc tgagctcaga ggttcacaca 4300
gctgcagctt cgaggccac agtctgcgac cttcttggtt ggagatgaga 4350
acttctcctg gaagcagggg taaatgtagg gggggtgggg attgctggat 4400
ggaaaccctg gaataggcta cttgatggct ctcaagacct tagaacccca 4450
gaaccatcta agacatggga ttcagtgatc atgtggttct cc 4492

<210> 50
<211> 2667
<212> DNA
<213> Homo sapien
<220>

<221> Unsure
<222> 2039-2042
<223> Unknown base

<400> 50

ggttgccaca gctggtttag ggccccgacc actggggccc cttgtcagga 50
ggagacagcc tcccggccccg gggaggacaa gtcgctgcca cctttggctg 100
ccgacgtgat tccctgggac ggtccgtttc ctgccgtcag ctgccggccg 150
agttgggtct ccgtgtttca ggccggctcc cccttcctgg tctcccttct 200
cccgtgggc cggtttatcg ggaggagatt gtcttccagg gctagcaatt 250
ggacttttga tgatgtttga ccagcggca ggaatagcag gcaacgtgat 300
ttcaaagctg ggctcagcct ctgtttcttc tctcgtgtaa tcgcaaaacc 350
cattttggag caggaattcc aatcatgtct gtgatgggtg tgagaaagaa 400
ggtgacacgg aaatgggaga aactccagg caggaacacc ttttgctgtg 450
atggccgcgt catgatggcc cggcaaaagg gcattttcta cctgaccctt 500
ttcctcatcc tggggacatg tacactcttc ttgcctttg agtgccgcta 550
cctggctgtt cagctgtctc ctgccatccc tgtatttgct gccatgctct 600
tccttttctc catggctaca ctgttgagga ccagcttcag tgaccctgga 650
gtgattcctc gggcgctacc agatgaagca gctttcatag aaatggagat 700
agaagctacc aatggtgcgg tgccccagg ccagcgacca ccgcctcgta 750
tcaagaattt ccagataaac aaccagattg tgaaactgaa atactgttac 800
acatgcaaga tcttcgggcc tcccggggcc tccattgca gcattctgtga 850
caactgtgtg gagcgcttcg accatcactg cccctgggtg ggggaattgtg 900
ttggaaagag gaactaccgc tactttacc tcttcactct ttctctctcc 950
ctcctcacia tctatgtctt cgccttcaac atcgtctatg tggccctcaa 1000
atctttgaaa attggcttct tggagacatt gaaagaaact cctggaactg 1050
ttctagaagt cctcatttgc ttctttacac tctgggtcgt cgtgggactg 1100
actggatttc atactttcct cgtggctctc aaccagacaa ccaatgaaga 1150
catcaaagga tcatggacag ggaagaatcg cgtccagaat ccctacagcc 1200
atggcaatat tgtgaagaac tgctgtgaag tgctgtgtgg ccccttgccc 1250
cccagtgctc tggatcgaag gggatatttg ccaactggagg aaagtggaag 1300
tcgacctccc agtactcaag agaccagtag cagcctcttg ccacagagcc 1350

cagccccac agaacacctg aactcaaagt agatgccgga ggacagcagc 1400
actcccgaag agatgccacc tccagagccc ccagagccac cacaggaggc 1450
agctgaagct gagaagtagc ctatctatgg aagagacttt tgtttgtgtt 1500
taattagggc tatgagagat ttcagggtgag aagttaaacc tgagacagag 1550
agcaagtaag ctgtcccttt taactgtttt tcttttgtct ttagtcaccc 1600
agttgcacac tggcattttc ttgctgcaag cttttttaa tttctgaact 1650
caaggcagtg gcagaagatg tcagtcacct ctgataactg gaaaaatggg 1700
tctcttgggc cctggcactg gttctccatg gcctcagcca cagggtcccc 1750
ttggaccccc tctcttccct ccagatccca gccctcctgc ttggggtcac 1800
tgggtctcatt ctggggctaa aagtttttga gactggctca aatcctccca 1850
agctgctgca cgtgctgagt ccagaggcag tcacagagac ctctggccag 1900
gggatccctaa ctgggttctt ggggtcttca ggactgaaga ggagggagag 1950
tggggtcaga agattctcct ggccaccaag tgccagcatt gccacaaaat 2000
ccttttagga atgggacagg taccttccac ttgttgtann nnttgttttt 2050
ccttttgact cctgctccca ttaggagcag gaatggcagt aataaaagtc 2100
tgcacttttg tcatctcttt tctcagagg aagcccgagt gctcacttaa 2150
acactatccc ctccagactcc ctgtgtgagg cctgcagagg ccctgaatgc 2200
acaaatggga aaccaaggca cagagaggct ctctctcct ctctctccc 2250
ccgatgtacc ctcaaaaaaa aaaaaatgct aaccagttct tccattaagc 2300
ctcggtgag tgagggaag cccagcactg ctgccctctc gggtaactca 2350
ccctaaggcc tcggcccacc tctggctatg gtaaccacac tgggggcttc 2400
ctccaagccc cgctcttcca gcacttccac cggcagagtc ccagagccac 2450
ttcaccctgg ggggtgggctg tggccccag tcagctctgc tcaggacctg 2500
ctctatttca gggaagaaga tttatgtatt atatgtggct atatttcta 2550
gagcacctgt gttttcctct ttctaagcca gggctcctgc tggatgactt 2600
atgcggtggg ggagtgtaaa ccggaacttt tcatctattt gaaggcgatt 2650
aaactgtgtc taatgca 2667

<210> 51

<211> 1819

<212> DNA

<213> Homo sapien

<400> 51

gagccgccgc cgcgcgcgcg ccgcgcactg cagccccagg ccccggcccc 50
ccacccacgt ctgcgttgct gccccgcctg ggccaggccc caaaggcaag 100
gacaaagcag ctgtcaggga acctccgccg gagtcgaatt tacgtgcagc 150
tgccggcaac cacaggttcc aagatggttt gcgggggctt cgcgtgttcc 200
aagaactgcc tgtgcgccct caacctgctt tacaccttgg ttagtctgct 250
gctaattgga attgctgcgt ggggcattgg cttcgggctg atttccagtc 300
tccgagtggg cggcgtgggc attgcagtgg gcatcttctt gttcctgatt 350
gcttttagtgg gtctgattgg agctgtaaaa catcatcagg tgttgctatt 400
tttttatatg attattctgt tacttgtatt tattgttcag ttttctgtat 450
cttgcgcttg tttagccctg aaccaggagc aacaggggtca gcttctggag 500
gttggttggg acaatacggc aagtgtcga aatgacatcc agagaaatct 550
aaactgctgt gggttccgaa gtgttaaccc aaatgacacc tgtctggcta 600
gctgtgttaa aagtgaccac tcgtgctcgc catgtgctcc aatcatagga 650
gaatatgctg gagaggtttt gagatttggt ggtggcattg gcctgttctt 700
cagttttaca gagatcctgg gtgtttggct gacctacaga tacaggaacc 750
agaaagaccc ccgcgcgaat cctagtgcac tcctttgatg agaaaacaag 800
gaagatttcc tttcgtatta tgatcttggt cactttctgt aattttctgt 850
taagctccat ttgccagttt aaggaaggaa acactatctg gaaaagtacc 900
ttattgatag tggaattata tatttttact ctatgtttct ctacatgttt 950
ttttctttcc gttgctgaaa aatatttgaa acttgtgggtc tctgaagctc 1000
ggtggcacct ggaatttact gtattcattg tcgggcactg tccactgtgg 1050
cctttcttag catttttacc tgcagaaaaa ctttgtatgg taccactgtg 1100
ttggttatat ggtgaatctg aacgtacatc tcaactggat aattatatgt 1150
agcactgtgc tgtgtagata gttcctactg gaaaaagagt ggaaatttat 1200
taaaatcaga aagtatgaga tcctgttatg ttaagggaaa tccaaattcc 1250
caattttttt tggctttttt aggaaagatt gttgtggtaa aaagtgttag 1300
tataaaaatg ataatttact tgtagtcttt tatgattaca ccaatgtatt 1350
ctagaaatag ttatgtctta ggaaattgtg gtttaatttt tgacttttac 1400
aggtaagtgc aaaggagaag tggtttcatg aaatgttcta atgtataata 1450

acattttacct tcagcctcca tcagaatgga acgagttttg agtaatcagg 1500
aagtatatct atatgatctt gatattgttt tataataatt tgaagtctaa 1550
aagactgcat ttttaaaciaa gttagtatta atgcgttggc ccacgtagca 1600
aaaagatatt tgattatctt aaaaattggt aaataccggt ttcatgaaat 1650
ttctcagtat tgtaacagca acttgtcaaa cctaagcata tttgaatatg 1700
atctcccata atttgaaatt gaaatcgtat tgtgtggctc tgtatattct 1750
gttaaaaaat taaaggacag aaacctttct ttgtgtatgc atgtttgaat 1800
taaaagaaag taatggaag 1819

<210> 52
<211> 2061
<212> DNA
<213> Homo sapien

<400> 52
cagtcaccat gaagctgggc tgtgtcctca tggcctgggc cctctacctt 50
tcccttggtg tgctctgggt ggcccagatg ctactggctg ccagttttga 100
gacgctgcag tgtgaggac ctgtctgcac tgaggagagc agctgccaca 150
cggaggatga cttgactgat gcaagggaag ctggcttcca ggtcaaggcc 200
tacactttca gtgaaccctt ccacctgatt gtgtcctatg actggctgat 250
cctccaaggt ccagccaagc cagtttttga aggggacctg ctggttctgc 300
gctgccaggc ctggcaagac tggccactga ctcaggtgac cttctaccga 350
gatggctcag ctctgggtcc ccccgggcct aacagggaaat tctccatcac 400
cgtggtacaa aaggcagaca gcgggcacta ccaactgcagt ggcatcttcc 450
agagccctgg tccctgggatc ccagaaacag catctgttgt ggctatcaca 500
gtccaagaac tgtttccagc gccaatctc agagctgtac cctcagctga 550
acccaagca ggaagcccca tgacctgag ttgtcagaca aagttgcccc 600
tgcagaggtc agctgcccgc ctctcttct ccttctacaa ggatggaagg 650
atagtgcaaa gcagggggct ctctcagaa ttccagatcc ccacagcttc 700
agaagatcac tccgggtcat actggtgtga ggcagccact gaggacaacc 750
aagtttgga acagagcccc cagctagaga tcagagtga ggggtgcttc 800
agctctgctg cacctccac attgaatcca gctctcaga aatcagctgc 850
tccaggaact gctcctgagg aggccctgg gcctctgcct ccgccgcaa 900

ccccatcttc tgaggatcca ggcttttctt ctctctctggg gatgccagat 950
 cctcatctgt atcaccagat gggccttctt ctcaaacaca tgcaggatgt 1000
 gagagtcttc ctcggtcacc tgctcatgga gttgagggaa ttatctggcc 1050
 accagaagcc tgggaccaca aaggctactg ctgaatagaa gtaaaccagtt 1100
 catccatgat ctcaactaac caccccaata aatctgattc tttattttct 1150
 ctctctgtcc tgcacatatg cataagtact ttacaagtt gtcccagtg 1200
 ttgttagaa taatgtagtt aggtgagtg aaataaattt atataaagt 1250
 agaattagag tttagctata attgtgtatt ctctcttaac acaacagaat 1300
 tctgctgtct agatcaggaa tttctatctg ttatatcgac cagaatgttg 1350
 tgatttaaag agaactaatg gaagtggatt gaatacagca gtctcaactg 1400
 ggggcaattt tgccccccag aggacattgg gcaatgtttg gagacatttt 1450
 ggtcattata cttgggggggt tgggggatgg tgggatgtgt gtctactggc 1500
 atccagtaaa tagaagccag ggggtgccgt aaacatccta taatgcacag 1550
 ggcagtaccc cacaacgaaa aataatctgg cccaaaatgt cagttgtact 1600
 gagtttgaga aaccaccagc taatgaaacc ctaggtgttg ggctctggaa 1650
 tgggactttg tcccttctaa ttattatctc ttccagcct cattcagcta 1700
 ttcttactga cataccagtc tttagctggg gctatgggt gttctttagt 1750
 tctagtttgt atccctcaa aagccattat gttgaaatcc taatcccaa 1800
 ggtgatggca ttaagaagtg ggcctttggg aagtgattag atcaggagt 1850
 cagagccctc atgattagga ttagtgccct tatttaaaaa ggccccagag 1900
 agctaactca cccttcacc atatgaggac gtggcaagaa gatgacatgt 1950
 atgagaacca aaaaacagct gtcgccaaac accgactctg tcgttgccct 2000
 gatcttgaac ttccagcctc cagaactatg agaaataaaa ttctggttgt 2050
 ttgtagccta a 2061

<210> 53
 <211> 1312
 <212> DNA
 <213> Homo sapien

<400> 53
 caccatgcct ggggggtgct cccggggccc cgccgccggg gacgggcgtc 50
 tgcggctggc gcgactagcg ctggtactcc tgggctgggt ctctcgtct 100

tctcccacct cctcggcac ctccttctcc tctcggcgc cgttcctggc 150
 ttccgccgtg tccgcccagc ccccgctgcc ggaccagtgc cccgcgctgt 200
 gcgagtgtc cgaggcagc cgcacagtca agtgcgtaa ccgcaatctg 250
 accgaggtgc ccacggacct gcccgcctac gtgcgcaacc tcttccttac 300
 cggcaaccag ctggcgtgc tccctgccgg cgccttcgcc cgcggccgc 350
 cgctggcgga gctggccgc ctcaacctca gcggcagccg cctggacgag 400
 gtgcgcgcgg gcgccttcga gcatctgcc agcctgcgcc agctcgacct 450
 cagccacaac ccaactggccg acctcagtc cttcgctttc tcgggcagca 500
 atgccagcgt ctcggtcccc agtccccctg tggaactgat cctgaaccac 550
 atcgtgcccc ctgaagatga gcggcagaac cggagcttcg agggcatggg 600
 ggtggcgcc ctgctggcg gccgtgcact gcaggggctc cgcgccttg 650
 agctggccag caaccacttc ctttacctgc cgcgggatgt gctggcccaa 700
 ctgcccagcc tcaggcacct ggacttaagt aataattcgc tggtagacct 750
 gacctacgtg tcttccgca acctgacaca tctagaaagc ctccacctgg 800
 aggacaatgc cctcaaggtc cttcacaatg gcacctggc tgagttgcaa 850
 ggtctacccc acattagggg tttcctggac aacaatccct gggctctgca 900
 ctgccacatg gcagacatgg tgacctggct caaggaaaca gaggtagtgc 950
 agggcaaaga ccggctcacc tgtgcatatc cggaaaaaat gaggaatcgg 1000
 gtcctcttgg aactcaacag tgctgacctg gactgtgacc cgattcttcc 1050
 cccatccctg caaacctctt atgtcttctt gggatttgtt ttagccctga 1100
 taggcgtat tttcctcctg gttttgtatt tgaaccgcaa ggggataaaa 1150
 aagtggatgc ataacatcag agatgcctgc agggatcaca tggaagggt 1200
 tcattacaga tatgaaatca atgggaccc cagattaaca aacctcagtt 1250
 ctaactcgga tgtctgagaa atattagagg acagaccaag gacaactctg 1300
 catgagatgt ag 1312

<210> 54
 <211> 1528
 <212> DNA
 <213> Homo sapien

<400> 54
 cggcgagcga gcaccttcga cgcgggtccgg ggacccccctc gtcgctgtcc 50

tccccgacgcg gaccccgcggtg ccccaggcct cgcgctgccc ggccggctcc 100
 tcgtgtccca ctcccggcgc acgcccctccc gcgagtcctcg ggccccctccc 150
 gcgcccctct tctcggcgcg cgcgcagcat ggcgcccccg caggtcctcg 200
 cgttcggggt tctgcttgcc gcggcgacgg cgacttttgc cgcagctcag 250
 gaagaatgtg tctgtgaaaa ctacaagctg gccgtaaaact gctttgtgaa 300
 taataatcgt caatgccagt gtacttcagt tgggtgcacaa aatactgtca 350
 tttgctcaaa gctggctgcc aaatgtttgg tgatgaaggc agaaatgaat 400
 ggctcaaaac ttggggagaag agcaaaacct gaagggggccc tccagaacaa 450
 tgatgggctt tatgatcctg actgcgatga gagcgggctc ttttaaggcca 500
 agcagtgcaa cggcacctcc acgtgctggt gtgtgaacac tgctggggtc 550
 agaagaacag acaaggacac tgaaataacc tgctctgagc gagtgagaac 600
 ctactggatc atcattgaac taaaacacaa agcaagagaa aaaccttatg 650
 atagtaaaag tttgcggaact gcacttcaga aggagatcac aacgcgttat 700
 caactggatc caaaatttat cacgagtatt ttgtatgaga ataattgttat 750
 cactattgat ctggttcaaa attcttctca aaaaactcag aatgatgtgg 800
 acatagctga tgtggcttat tattttgaaa aagatgttaa aggtgaatcc 850
 ttgtttcatt ctaagaaaat ggacctgaca gtaaatgggg aacaactgga 900
 tctggatcct ggtcaaaact taatttatta tgttgatgaa aaagcacctg 950
 aattctcaat gcaggggtcta aaagctgggt ttattgctgt tattgtgggt 1000
 gtgggtgatag cagttgttgc tggaattggt gtgctgggta tttccagaaa 1050
 gaagagaatg gcaaagtatg agaaggctga gataaaggag atgggtgaga 1100
 tgcataggga actcaatgca taactatata atttgaagat tatagaagaa 1150
 gggaaatagc aaatggacac aaattacaaa tgtgtgtgcg tgggacgaag 1200
 acatctttga aggtcatgag tttgttagtt taacatcata tatttgtaat 1250
 agtgaaacct gtactcaaaa tataagcagc ttgaaactgg ctttaccaat 1300
 cttgaaattt gaccacaagt gtcttatata tgcagatcta atgtaaaatc 1350
 cagaacttgg actccatcgt taaaattatt tatgtgtaac attcaaagt 1400
 gtgcattaa tatgcttcca cagtaaaatc tgaaaaactg atttgtgatt 1450
 gaaagctgcc tttctattta cttgagtctt gtacatacat acttttttat 1500

gagctatgaa ataaaacatt ttaaactg 1528

<210> 55

<211> 4725

<212> DNA

<213> Homo sapien

<400> 55

caattcggcc tcgtccttg tgattgcgt aaaccttcg tctcagctg 50
agaacgctcc accacctccc cggatcgctc atctcttggc tgcctccca 100
ctgttcctga tgttatatta ctccccgtat cccctactcg ttcttcacaa 150
ttctgtaggt gagtggttcc agctggtgcc tggcctgtgt ctcttggatg 200
ccctgtggct tcagtcogtc tcctgttgcc caccacctcg tccctgggccc 250
gcctgatacc ccagcccaac agctaagggtg tggatggaca gtagggggct 300
ggcttctctc actggtcagg ggtcttctcc cctgtctgcc tcccggagct 350
aggactgcag aggggcctat catggtgctt gcaggccccc tggctgtctc 400
gctgttgctg cccagcctca cactgctggg gtcccacctc tccagctccc 450
aggatgtctc cagtgaagccc agcagtgagc agcagctgtg cgccttagc 500
aagcaccoca ccgtggcctt tgaagacctg cagccgtggg tctctaactt 550
cacctacctt ggagcccggt atttctccca gctggctttg gacctctcg 600
ggaaccagct catcgtggga gccaggaact acctcttcag actcagcctt 650
gccaatgtct ctcttcttca ggccacagag tgggcctcca gtgaggacac 700
gcgcgctcc tgccaaagca aagggaagac tgaggaggag tgtcagaact 750
acgtgcgagt cctgatcgtc gccggccgga aggtgttcat gtgtggaacc 800
aatgcctttt ccccatgtg caccagcaga cagggtggga acctcagccg 850
gactattgag aagatcaatg gtgtggcccg ctgcccctat gaccacgccc 900
acaactccac agctgtcctc tcctcccagg gggagctcta tgcagccaag 950
gtcatcgact tctcaggtcg ggacctgcc atctaccgca gcctgggcag 1000
tgggccaccg cttcgcactg cccaatataa ctccaagtgg cttaatgagc 1050
caaacttcgt ggcagcctat gatattgggc tgtttgcata cttcttctg 1100
cgggagaacg cagtggagca cgactgtgga cgcaccgtgt actctcgct 1150
ggcccgctg tgcaagaatg acgtgggggg ccgattcctg ctggaggaca 1200
catggaccac attcatgaag gcccggtcca actgctccc cccgggcgag 1250

gtcccccttct actataacga gctgcagagt gccttccact tgccggagca 1300
ggacctcatc tatggagttt tcacaaccaa cgtaaacagc atcgcggtt 1350
ctgctgtctg cgccttcaac ctcaagtcta tctcccaggc tttcaatggc 1400
ccatttcgct accaggagaa cccaggggct gcctggctcc ccatagccaa 1450
ccccatcccc aatttccagt gtggcaccct gcctgagacc ggtcccaacg 1500
agaacctgac ggagcgcagc ctgcaggacg cgcagcgcct cttcctgatg 1550
agcgaggccg tgcagccggt gacacccgag ccctgtgtca cccaggacag 1600
cgtgcgcttc tcacacctcg tgggtggacct ggtgcaggct aaagacacgc 1650
tctaccatgt actctacatt ggcaccgagt cgggcaccat cctgaaggcg 1700
ctgtccacgg cgagccgcag cctccacggc tgctacctgg aggagctgca 1750
cgtgctgccc cccgggcgcc gcgagcccct gcgcagcctg cgcatacctgc 1800
acagcgcccg cgcgctcttc gtggggctga gagacggcgt cctgcgggtc 1850
ccactggaga ggtgcgcgc ctaccgcagc cagggggcat gcctgggggc 1900
ccgggacccg tactgtggct gggacgggaa gcagcaacgt tgcagcacac 1950
tcgaggacag ctccaacatg agcctctgga cccagaacat caccgcctgt 2000
cctgtgcgga atgtgacacg ggatgggggc ttcggcccat ggtcaccatg 2050
gcaaccatgt gagcaattgg atggggacaa ctcaggctct tgccctgtgtc 2100
gagctcgatc ctgtgattcc cctcgacccc gctgtggggg ccttgactgc 2150
ctggggccag ccatccacat cgccaactgc tccaggaatg gggcgtggac 2200
cccgtggtca tcgtgggcgc tgtgcagcac gtctgtggc atcggttcc 2250
aggtccgcca gcgaagttgc agcaaccctg ctccccgcca cgggggcccgc 2300
atcttcgtgg gcaagagccg ggaggaacgg ttctgtaatg agaacacgcc 2350
ttgcccgtg ccatcttct gggcttctg gggctcctgg agcaagtgc 2400
gcagcaactg tggagggggc atgcagtcgc ggcgtcgggc ctgcgagaac 2450
ggcaactcct gcctgggctg cggcgagttc aagacgtgca accccgaggg 2500
ctgccccgaa gtgcggcgca acaccccctg gacgcctgg ctgcccgtga 2550
acgtgacgca gggcggggca cggcaggagc agcggttccg cttcacctgc 2600
cgcgcgcccc ttgcagaccc gcacggcctg cagttcgga ggagaaggac 2650
cgagacgagg acctgtccc cggacggctc cggctcctgc gacaccgacg 2700

ccctggtgga ggtcctcctg cgcagcggga gcacctcccc gcacacggtg 2750
 agcgggggct gggccgcctg gggcccgtgg tcgtcctgct cccgggactg 2800
 cgagctgggc ttccgcgtcc gcaagagAAC gtgcactaac ccggagcccc 2850
 gcaacggggg cctgccctgc gtgggcgatg ctgccgagta ccaggactgc 2900
 aacccccagg cttgccagct tcggggtgct tggtcctgct ggacctcatg 2950
 gtctccatgc tcagcttcct gtggtggggg tcactatcaa cgcaccggtt 3000
 cctgcaccag ccccgacccc tccccagggtg aggacatctg tctcgggctg 3050
 cacacggagg aggcactatg tgccacacag gcctgcccag gctggtcgcc 3100
 ctggtctgag tggagtaagt gcactgacga cggagcccag agccgaagcc 3150
 ggcactgtga ggagctctc ccagggtcca gcgcctgtgc tggaaacagc 3200
 agccagagcc gcccctgccc ctacagcgag attcccgtca tcctgccagc 3250
 ctccagcatg gaggaggcca ccgactgtgc aggtaaaaga aaccggacct 3300
 acctcatgct gcggctctcc cagccctcca gcacccact ccaaagtctg 3350
 gactctttcc acatctgct ccagacagcc aagctttgtt ggggtcccca 3400
 ctgctttgag atgggttcaa tctcatccac ttggtggcca cgggcatctc 3450
 ctgcttcttg ggctctgggc tctgaccct agcagtgtac ctgtcttgcc 3500
 agcactgcca gcgtcagtc caggagtcca cactgggtcca tctgcccacc 3550
 cccaaccatt tgcactacaa gggcggaggc accccgaaga atgaaaagta 3600
 cacacccatg gaattcaaga ccctgaacaa gaataacttg atccctgatg 3650
 acagagccaa cttctaccca ttgcagcaga ccaatgtgta cagactact 3700
 tactacccaa gcccctgaa caaacacagc ttccggcccg aggctcacc 3750
 tggacaacgg tgcttcccca acagctgata ccgcctcct ggggacttgg 3800
 gcttcttgcc ttcataaggc acagagcaga tggagatggg acagtggagc 3850
 cagtttggtt ttctccctct gcactaggcc aagaacttgc tgccttgct 3900
 gtgggggggc ccacccggt tcagagagct ctggctggca ttgacctgg 3950
 gggaaagggc tggtttcagg ctgacatatg gccgcaggtc cagttcagcc 4000
 caggtctctc atggttatct tccaaccac tgtcacgctg aactatgct 4050
 gccatgctg ggctgtggac ctactgggca tttgaggaat tggagaatgg 4100
 agatggcaag agggcaggct ttttaagttg ggttggagac aacttcctgt 4150

ggcccccaaca agctgagtct ggcccttctcc agctggcccc aaaaaaggcc 4200
 tttgctacat cctgattatc tctgaaagta atcaatcaag tggctccagt 4250
 agctctggat tttctgccag ggctgggcca ttgtggtgct gccccagtat 4300
 gacatgggac caaggccagc gcagggttatc cacctctgcc tgggaagtcta 4350
 tactctaccc agggcatccc tctggtcaga ggcagtgagt actgggaact 4400
 ggaggctgac ctgtgcttag aagtccttta atctgggctg gtacaggcct 4450
 cagccttgcc ctcaatgcac gaaagggtggc ccaggagaga ggatcaatgc 4500
 cataggaggc agaagtctgg cctctgtgcc tctatggaga ctatcttcca 4550
 gttgctgctc aacagagttg ttggctgaga cctgcttggg agtctctgct 4600
 ggcccttcat ctgttcagga acacacacac acacacactc acacacgcac 4650
 acacaatcac aatttgctac agcaacaaaa aagacattgg gctgtggcat 4700
 tattaattaa agatgatata cagtc 4725

<210> 56
 <211> 2018
 <212> DNA
 <213> Homo. sapien

<400> 56
 cgcagaaaga ggaggcgctt gccttcagct tgtgggaaat cccgaagatg 50
 gccaaagaca actcaactgt tcgttgcttc cagggcctgc tgatTTTTTgg 100
 aaatgtgatt attggttggt gcggcattgc cctgactgcg gagtgcattc 150
 tctttgtatc tgaccaacac agcctctacc cactgcttga agccaccgac 200
 aacgatgaca tctatggggc tgccctggatc ggcataattg tgggcatctg 250
 cctcttctgc ctgtctgttc taggcattgt aggcattatg aagtcacagc 300
 ggaaaattct tctggcgtat ttcattctga tgtttatagt atatgccttt 350
 gaagtggcat cttgtatcac agcagcaaca caacaagact ttttcacacc 400
 caacctcttc ctgaagcaga tgctagagag gtacccaaac aacagccctc 450
 caaacaatga tgaccagtgg aaaaacaatg gagtcaccaa aacctgggac 500
 aggctcatgc tccaggacaa ttgctgtggc gtaaatggc catcagactg 550
 gcaaaaatac acatctgcct tccggactga gaataatgat gctgactatc 600
 cctggcctcg tcaatgctgt gttatgaaca atcttaaaga acctctcaac 650
 ctggaggctt gtaaactagg cgtgcctggg ttttatcaca atcagggctg 700

ctatgaactg atctctgggc caatgaaccg acacgcctgg ggggttgct 750
ggtttggatt tgccattctc tgctggactt tttgggttct cctgggtacc 800
atgttctact ggagcagaat tgaatattaa gcataaagtg ttgccaccat 850
acctccttcc ccgagtgcct ctggatttgg tgctggaacc agctctctcc 900
taatattcca cgtttgtgcc ccacactaac gtgtgtgtct tacattgcca 950
agtcagatgg tacggacttc ctttaggagc tcaggcttct gcagttctca 1000
tgactcctac ttttcactct agtctagcat tctgcaacat ttatatagac 1050
tgttgaaagg agaatttgaa aaatgcataa taactacttc catccctgct 1100
tatttttaat ttgggaaaat aaatacatte gaaggaaact gtgttatcac 1150
agtaaccag agctgtattt ggctagcaat ctgcctgtat ctctcactat 1200
tatctaaaag aaaccttcca atgcttctgt tgatctcagt attgtcaggg 1250
gaacagagaa gttgggaaaa gattactgaa atataccttt tgcatttctt 1300
tctagagtag ctcccatata tggagatggg tgattctctt gatgccacct 1350
tcagatcctt ttattctcca gaataattct taacagtggg tcaaatttcc 1400
tttcatacct tgaagtatgt gtttagtagc ctcaattctc cattaattaa 1450
aagtgtgggc tgggcgtggg ggctcatgcc tgtaatccca gcactttggg 1500
aggccgaggt gggcagatca cctgaggtca ggagttcaag accagcctgg 1550
ccaacatggg gaaacccgt ctctacaaaa atacaaaaat tagccaggcg 1600
tgatggcagg tgccgtgaat cctagctact tggcaggcta acgcaggaga 1650
atcacttgac cgggagacag aggttgagc gagctgagat cgtacctatt 1700
gcactccatc ctggatgaaa gagccagact ctgtctcaaa acaaacaaaa 1750
aagcgtgggg acttctgggg acagacaagg tgccgtttat atatttactc 1800
agtctttgcc ctgaatgggc tcagcttgag accatttcaa actggagaga 1850
agcaagccag ccaatagaat ggggtgattt acagggattt ctgtttactg 1900
tcaaaatatt tctcatctgc actatgtttc catttgtggg cctgaaggaa 1950
attcttataa ctcaacattt gtctggtctt ataagtaaag acagcttta 2000
aatctgttca ctttcaaa 2018

<210> 57

<211> 1043

<212> DNA

<213> Homo sapien

<400> 57

cccggccccg gctcgagaat caagggcctc ggccgccgtc ccgcagctca 50
gtccatcgcc cttgccgggc agccccgggca gagaccatgt ttgacaagac 100
gcggtctgccc tacgtggccc tcgatgtgct ctgcgtgttg ctggctggat 150
tgccttttgc aatttttact tcaaggcata ttacttcaag gcatacccc 200
ttccaacgag gagtattctg taatgatgag tccatcaagt acccttaca 250
agaagacacc ataccttatg cgttattagg tggaataatc attccattca 300
gtattatcgt tattattctt ggagaaaccc tgtctgttta ctgtaacctt 350
ttgcactcaa attcctttat caggaataac tacatagcca ctatttaca 400
agccattgga acctttttat ttggtgcagc tgctagtcag tccctgactg 450
acattgcaa gtattcaata ggcagactgc ggcctcactt cttggatgtt 500
tgtgatccag attggtcaaa aatcaactgc agcgatgggtt acattgaata 550
ctacatatgt cgaggggaatg cagaaagagt taaggaaggc aggttgtcct 600
tctattcagg ccaactcttcg ttttccatgt actgcatgct gtttgtggca 650
ctttatcttc aagccaggat gaaggagac tgggcaagac tcttacgccc 700
cacactgcaa tttggtcttg ttgcgtatc catttatgtg ggccctttctc 750
gagtttctga ttataaacac cactggagcg atgtgttgac tggactcatt 800
cagggagctc tgggttgaat attagttgct gtatatgtat cggatttctt 850
caaagaaaga acttctttta aagaaagaaa agaggaggac tctcatacaa 900
ctctgcatga aacaccaaca actgggaatc actatccgag caatcaccag 950
ccttgaaagg cagcaggggtg cccaggtgaa gctggcctgt tttctaaagg 1000
aaaatgattg ccacaaggca agaggatgca tctttcttcc tgg 1043

<210> 58

<211> 2970

<212> DNA

<213> Homo sapien

<400> 58

agtgaagggg tttcccatat gaaaaataca gaaagaatta tttgaatact 50
agcaaataca caacttgata tttctagaga acccaggcac agtcttggag 100
acattactcc tgagagactg cagctgatgg aagatgagcc ccaacttcta 150
aaaatgtatc actaccggga ttgagataca aacagcattt aggaaggtct 200
catctgagta gcagcttctt gccctccttc ttggagataa gtcgggcttt 250

tgggtgagaca gactttccca accctctgcc cggccggtgc ccatgcttct 300
 gtggctgctg ctgctgatcc tgactcctgg aagagaacaa tcaggggtgg 350
 ccccaaaagc tgtacttctc ctcaatcctc catggtccac agccttcaaa 400
 ggagaaaaag tggctctcat atgcagcagc atatcacatt ccctagccca 450
 gggagacaca tattggtatc acgatgagaa gttgttgaaa ataaaacatg 500
 acaagatcca aattacagag cctggaaatt accaatgtaa gacccgagga 550
 tcctccctca gtgatgccgt gcatgtggaa ttttcacctg actggctgat 600
 cctgcaggct ttacatcctg tctttgaagg agacaatgtc attctgagat 650
 gtcaggggaa agacaacaaa aacactcatc aaaaggttta ctacaaggat 700
 ggaaaacagc ttctaataag ttataattta gagaagatca cagtgaattc 750
 agtctccagg gataatagca aatatcattg tactgcttat aggaagtttt 800
 acataacttga cattgaagta acttcaaaac ccctaaatat ccaagttcaa 850
 gagctgtttc tacatcctgt gctgagagcc agctcttcca cgcccataga 900
 ggggagtccc atgacctga cctgtgagac ccagctctct ccacagaggc 950
 cagatgtcca gctgcaattc tccctcttca gagatagcca gacctcgga 1000
 ttgggctgga gcaggteccc cagactccag atccctgcca tgtggactga 1050
 agactcaggg tcttactggg gtgaggtgga gacagtgact cacagcatca 1100
 aaaaaaggag cctgagatct cagatacgtg tacagagagt ccctgtgtct 1150
 aatgtgaatc tagagatccg gccacccgga gggcagctga ttgaaggaga 1200
 aaatatggtc cttatttgct cagtagccca gggttcaggg actgtcacat 1250
 tctcctggca caaagaagga agagtaagaa gcctgggtag aaagaccag 1300
 cgttcctgtg tggcagagct gcatgttctc accgtgaagg agagtgatgc 1350
 agggagatac tactgtgcag ctgataacgt tcacagcccc atcctcagca 1400
 cgtggattcg agtcaccgtg agaattccgg tatctcacc ttctctcacc 1450
 ttcagggtc ccagggccca cactgtggtg ggggacctgc tggagcttca 1500
 ctgtgagtcc ctgagaggct ctccccgat cctgtaccga ttttatcatg 1550
 aggatgtcac cctggggaac agctcagccc cctctggagg aggagcctcc 1600
 ttcaacctct ctctgactgc agaactctt ggaaactact cctgtgatgc 1650
 agacaatggc ctgggggccc agcacagtca tggagtgagt ctcagggta 1700

cagttccggt gtctcgcccc gtcctcaccc tcaggggtcc cggggcccag 1750
 gctgtggtgg gggacctgct ggagcttcac tgtgagtccc tgagaggctc 1800
 cttccccgatc ctgtactggt tttatcacga ggatgacacc ttggggaaca 1850
 tctcgggcca ctctggagga ggggcatcct tcaacctctc tctgactaca 1900
 gaacattctg gaaactactc atgtgaggct gacaatggcc tgggggcca 1950
 gcacagtaaa gtggtgacac tcaatgttac aggaacttcc aggaacagaa 2000
 caggccttac cgctgcggga atcacggggc tggtgctcag catcctcgtc 2050
 cttgctgctg ctgctgctct gctgcattac gccagggccc gaaggaaacc 2100
 aggaggactt tctgccactg gaacatctag tcacagtcct agtgagtgtc 2150
 aggagccttc ctgctccagg ccttccagga tagaccctca agagcccact 2200
 cactctaaac cactagcccc aatggagctg gagccaatgt acagcaatgt 2250
 aaatcctgga gatagcaacc cgatttattc ccagatctgg agcatccagc 2300
 atacaaaaga aaactcagct aattgtccaa tgatgcatca agagcatgag 2350
 gaacttacag tctctattc agaactgaag aagacacacc cagacgactc 2400
 tgcaggggag gctagcagca gaggcagggc ccatgaagaa gatgatgaag 2450
 aaaactatga gaatgtacca cgtgtattac tggcctcaga ccactagccc 2500
 cttaccacaga gtggcccaca ggaaacagcc tgcaccatct ttttttctgt 2550
 tctctccaac cacacatcat ccactctctc agactctgcc tcctacgagg 2600
 ctgggctgca gggtatgtga ggctgagcaa aaggctctgca aatctcccct 2650
 gtgctgctgctc tgtgtgttcc ccaggaagag agcaggcagc ctctgagcaa 2700
 gcaactgtgtt attttcacag tggagacacg tggcaaggca ggagggccct 2750
 cagctcctag ggctgtcgaa tagaggagga gagagaaatg gtctagccag 2800
 gggtacaagg gcacaatcat gaccatttga tccaagtgtg atcgaaagct 2850
 gttaatgtgc tctctgtata aacaatttgc tccaaatatt ttgtttccct 2900
 tttttgtgtg gctggtagtg gcattgctga tgttttggtg tatatgctgt 2950
 atccttgcta ccatattggg 2970

<210> 59
 <211> 2732
 <212> DNA
 <213> Homo sapien
 <400> 59

ggagccgcgc cgcattctcag gcgcagttctc taggggctgt gcgcattccta 50
 ggggggggaca tgtgcatctc aggggggctg ctgcgcatctg ggggggtgctg 100
 tgtgcatctc ggggggggctg ttgcatctac gcgggggtggc tgtgtccgca 150
 tctggagggg gctgtgcgca acccgggggg ggtgttgccg gcattctagca 200
 ggggcggctg tgcgcatttc gggggggggc tgtgcatatc tgggggggaca 250
 cgtgcttata tctggggggc gctgtgcgca tcttgagggg tgtgtacatc 300
 tcggggggcc tgtgcatctt ggggggctgt gtgcatccgc gggggctgtg 350
 cgcattctcg ggtgctgtgc gctgctctc tgagctctgc tctttcttgc 400
 agcgtttgcc tcagccatgg agggcggggc gcgggcagcc acccccacag 450
 cactgcctta ctacgtggcc ttctcccagc tgctgggcct gaccttgggtg 500
 gccatgaccg gcgcgtggct cgggctgtac cgaggcggca ttgcctggga 550
 gagcgacctg cagttcaacg cgcacccct ctgcatggc ataggcctga 600
 tcttctgca gggaaatgcc ctgctgggtt accgtgtctt caggaaacgaa 650
 gctaaacgca ccaccaaggt cctgcacggg ctgctgcaca tctttgcgct 700
 cgtcatcgcc ctgggtggct tgggtggcgg gttcgactac cacaggaaga 750
 agggctacgc tgacctgtac agcctacaca gctgggtgcgg gatccttgtc 800
 tttgtcctgt actttgtgca gtggctgggt ggcttcagct tcttctgtt 850
 ccccgagct tcattctccc tgcggagccg ctaccgcca cagcacatct 900
 tctttgggtg taccatcttc ctcttccc tgggcaccgc cctgctgggc 950
 ctgaaggagg cactgctgtt caacctcggg ggcaagtata gcgcatttga 1000
 gcccgagggt gtctggcca acgtgctggg cctgctgctg gcctgcttcg 1050
 gtggggcggg gctctacatc ttgacccggg ccgactggaa gcggccttcc 1100
 caggcgggaag agcaggccct ctccatggac ttcaagacgc tgaggcaggg 1150
 agatagcccc ggctcccagt gatgcgccc gccggccctg ggggttcgcg 1200
 ggggtgtctt ttgcctgccc ctgctgaggg gtcttcagga ctgcaggctc 1250
 cggagagtgg ctctggcagc aggcgggcgc gtgggtgcag ggggatccgt 1300
 ttgatgcgtc gtttctgggg caggctctcc cctcctctgc ttctcgttt 1350
 tccgctgcta tagaccagtt cattgtgtgt ggctcccgtg tctctgttgc 1400
 ccccttcagt gcagaaggct ttgggtagac ttcgggtgtt cggctcctgg 1450

cgcagagcac agatctttaa agaagcgta gagaggtagg ttctaccctc 1500
 ttggtagtag atgcctgggg caaggcccag gggaaactgg gggggcctca 1550
 gggacaggcc tggaaaggcc acgatggcct gctgaattca aacaaggagt 1600
 ccctccagcc tgaataacac gtggcacaaa tgggcccggc ctttggcaga 1650
 ggagcaagtg atatgatgtg taaagtatgt tgggtggtgaa agcaagggtc 1700
 cccaggagag gggagggact ggcccctggg aagctgtgag atgaggctgt 1750
 ggcccagctg tagtcctgac cttactcttc tttaaaacc tttagcccta 1800
 ggatggcttt ggtgggagag gggatagaag cccatgactt cagacagact 1850
 ttctcttggc agatgcaggc aggcctctc ccaggctgt ccagacatgg 1900
 gggttgggga tggggggtac cttgcagccc cttcctgctg gggctccctc 1950
 cttgtagcac ccccttgagg ctacgtctg gtttctctc ccaggctcac 2000
 ccaggctctg ctacggctgg gaggcagagg gcacaaacct tataattttt 2050
 taaatgaaaa accgtgctg ctggctgtgg ctagagcccc ctggggctgc 2100
 tggagctgct gcctctgttc tggaggacga gccttctct tatctgctgc 2150
 ccatctttcc aggaagtcag gatggagtca gacaactaac gatcatcccc 2200
 cgtgggtgtc tgcacatcac tccagcccca taaagagtgt catgttagct 2250
 gagtcaccat ttggcttcgg cctggaaata gtgtgttaga aactgatcg 2300
 tgtgcgaggc caggagatca agaccatcct gactaacaaa cacagtgaaa 2350
 ccccgctctc actaaaaata caaaaaaatt agccaggcgt ggtggtgggc 2400
 gcctgtagtc ccagctactt gggagacagg tctctacgga attccctgta 2450
 ttagtctata tggttctcca agaaactgaa tgaatccatt ggagaagcgg 2500
 tggataacta gccacgacaa aatttgagaa tacataaaca acgcattccg 2550
 caggaaacat acagaggatg ccttttctgt gattgggtgg gattttttcc 2600
 ctttttatgt ggatatagta gttacttgtg acaagaataa ttttggaata 2650
 atttctatta atatcaactc tgaagctaatt tgtacataat ctcgagattg 2700
 tgtttgttca taataaaagt gaagtgaatg tg 2732

<210> 60
 <211> 2165
 <212> DNA
 <213> Homo sapien
 <400> 60

cgccaccgct gggcgcgggc aggcggggcg gatgcggcag ctgtgccggg 50
 gccgcgtgct gggcatctcg gtggccatcg cgcacgggggt cttctcgggc 100
 tccctcaaca tcttgetcaa gttcctcatc agccgctacc agttctcctt 150
 cctgaccctg gtgcagtgcc tgaccagctc caccgcggcg ctgagcctgg 200
 agctgctgcg gcgcctcggg ctcatcgccg tgccccctt cggctctgagc 250
 ctggcgcgct ccttcgcggg ggtcgcggtg ctctccacgc tgcagtccag 300
 cctcacgctc tggtcctgc ggggcctcag cctgcccatg tacgtgggtct 350
 tcaagcgctg cctgcccctg gtcaccatgc tcatcggcgt cctgggtgctc 400
 aagaacggcg cgcctcgcg aggggtgctg gcggcggtgc tcatcaccac 450
 ctgcggcgcc gccctggcag gagccggcga cctgacgggc gaccccatcg 500
 ggtacgtcac gggagtgctg gcgggtgctg tgcacgctgc ctacctgggtg 550
 ctcatccaga aggcacgcgc agacaccgag cacggggccgc tcaccgcgca 600
 gtacgtcatc gccgtctctg ccaccccgct gctgggtcatc tgctccttcg 650
 ccagcaccga ctccatccac gcctggacct tcccgggctg gaaggaccgc 700
 gccatgggtct gcatcttcgt ggctgcac cctgatcggt gcgccatgaa 750
 cttcaccacg ctgcactgca cctacatcaa ttcggccgtg accacctctc 800
 tgttcattgc cggcgtgggt gtgaacaccc tgggtcttat catttactgt 850
 gtggccaagt tcatggagac cagaaagcaa agcaactacg aggacctgga 900
 ggcccagcct cggggagagg aggcgcagct aagtggagac cagctgccgt 950
 tcgtgatgga ggagctgccc ggggagggag gaaatggccg gtcagaaggt 1000
 ggggaggcag cagggtggcc cgctcaggag agcaggcaag aggtcagggg 1050
 cagccccga ggagtccgc tgggtggctg gagctctgaa gaaggagca 1100
 ggaggtcggt aaaagatgct tacctcgagg tatggaggtt ggtagggga 1150
 accaggtata tgaagaagga ttatttgata gaaaacgagg agttaccag 1200
 tccttgagaa ggaggtgcat gtacgtacct atgtgcatac acttatttta 1250
 tatgttagaa atgacgtgtt ttaatgagag gcctccccgt ttattcttt 1300
 gaggagtggg gaagggaaga aaagaaagaa gctgaaaggt actgacacag 1350
 agcaacaaaa ttagcacctg tgtgaattat ttagtgtgac ttcacctgag 1400
 gcatcacaga gacaaaagaa tgtgaagcta cttacaaaag taaggcaacg 1450

tttctgcttc agactcctgg cacatttact ttttgtcatt ataaccataa 1500
 ctaaatatct gcatgtacca agagtcccta agccaccccc tccaaagatg 1550
 gagtgtagaa atgatgacag cacttagtaa gttcaaagat gacattcagg 1600
 gatgcatttt ttgatgatag aactacagtt tttatcgcca gctgggcaaa 1650
 gagtatattg ctgaaatgat atataaatat attgaattga tgtttactgt 1700
 ttatagtcac ctgaaatata atatttactc tgattctact cacttgtttt 1750
 ttaaaaataa gtgtcctact attgtattat atattgatag aaactgttaa 1800
 agctattttg aaaatatgag ttcttagctt taatcatgaa gtctgaagtt 1850
 tgctttcagt aattatttta aaagttggtt tggttcattg ctttataata 1900
 tttattattg aatgccaaac ctgttctttt ttttactgtg tccaatattc 1950
 tttcaagcaa atgcaatggc tggaatataa ttcagaatta actgaaaccc 2000
 agccagaaga gggaccacct gtaaagcaag tcctttcaag tttcactgca 2050
 catcccaaac catgttacia aaagagcaac tgctatatcc acattatgat 2100
 atttttctat cttaaatttg tcaaaataaa gtatgagtct aactattaaa 2150
 aaaaaaaaaa aaaaa 2165

<210> 61
 <211> 424
 <212> DNA
 <213> Homo sapien

<400> 61
 atttctccag gagaactcca cacttgcaac atatcttctc caaggacaga 50
 agagggacaa tatttgtcct tcctactgga ttttgaaacc ctttgcactg 100
 agtgtagact gtagttctgt gacataccat gaagagtgtg tgtgtgtttt 150
 aaggagagcta ctgtcttacc caaaacctgt gaatataaag tgttttttca 200
 tgaattgctc attattcagc cagtcgttaa tgaattcatt caacaagtgt 250
 ctctgagatg ctagacactg gggattaaaa gaggaacaac agagacaaga 300
 tctctgcctt ccagaaactg acagtctatt gaatgagaca gttgtctaac 350
 aatcacaatc aagtgtgatc aatctctggt gacaggactc taacctagag 400
 gcatgtgcct aatctggggt gact 424

<210> 62
 <211> 1270
 <212> DNA
 <213> Homo sapien

<400> 62

caggggacag gctgcagccg gtgcagttac acgttttcct ccaaggagcc 50
tcggacgttg tcacgggttt ggggtcgggg acagagcagt gaccatggcc 100
aggctggcgt tgtctcctgt gccagccac tggatggtgg cgttgctgct 150
gctgctctca gctgagccag taccagcagc cagatcggag gaccggtacc 200
ggaatcccaa aggtagtgtg tggtcgcgga tctggcagag cccacgtttc 250
atagccagga aacggggctt cacggtgaaa atgcactgct acatgaacag 300
cgctccggc aatgtgagct ggctctggaa gcaggagatg gacgagaatc 350
cccagcagct gaagctggaa aagggccgca tgggaagagtc ccagaacgaa 400
tctctcgcca ccctcaccat ccaaggcatc cggtttgagg acaatggcat 450
ctacttctgt cagcagaagt gcaacaacac ctcgagggtc taccagggct 500
gcggcacaga gctgcgagtc atgggattca gcacctggc acagctgaag 550
cagaggaaca cgctgaagga tggatatcatc atgatccaga cgctgctgat 600
catcctcttc atcatcgtgc ctatcttcct gctgctggac aaggatgaca 650
gcaaggctgg catggaggaa gatcacacct acgagggcct ggacattgac 700
cagacagcca cctatgagga catagtgcg ctgaggacag gggaagtga 750
gtggtctgta ggtgagcacc caggccagga gtgagagcca ggtcgcccca 800
tgacctgggt gcaggctccc tggcctcagt gactgcttcg gagctgcctg 850
gctcatggcc caaccccttt cctggacccc ccagctggcc tctgaagctg 900
gccaccaga gctgccattt gtctccagcc cctggtcccc agctcttgcc 950
aaagggcctg gagtagaagg acaacagggc agcaacttgg agggagtctt 1000
ctggggatgg acgggaccca gccttctggg ggtgctatga ggtgatccgt 1050
ccccacacat gggatggggg aggcagagac tggccagag cccgcaaatg 1100
gactcggagc cgagggcctc ccagcagagc ttgggaaggg ccattggacc 1150
aactgggccc cagaagagcc acaggaacat cattcctctc ccgcaaccac 1200
tcccaccca gggaggccct ggctccagt gccttcccc gtggaataaa 1250
cgggtgtgtcc tgagaaacca 1270

<210> 63

<211> 2549

<212> DNA

<213> Homo sapien

<400> 63

atgggcctcc ccgagccggg ccctctccgg cttctggcgc tgctgctgct 50
gctgctgctg ctgctgctgc tgcggctcca gcatcttgcg gcggcagcgg 100
ctgatccgct gctcggcggc caagggccgg ccaaggagtg cgaaaaggac 150
caattccagt gccggaaacga gcgctgcac ccctctgtgt ggagatgcga 200
cgaggacgat gactgcttag accacagcga cgaggacgac tgccccaaga 250
agacctgtgc agacagtgc ttcacctgtg acaacggcca ctgcatccac 300
gaacggtgga agtgtgacgg cgaggaggag tgtcctgatg gctccgatga 350
gtccgaggcc acttgaccca agcaggtgtg tcctgcagag aagctgagct 400
gtggaccac cagccacaag tgtgtacctg cctcgtggcg ctgcgacggg 450
gagaaggact gcgaggggtg agcggatgag gccggctgtg ctacctact 500
gggcacctgc cgtggggacg agttccagtg tggggatggg acatgtgtcc 550
ttgcaatcaa gcactgcaac caggagcagg actgtccaga tgggagtgat 600
gaagctggct gcctacaggg gctgaacgag tgtctgcaca acaatggcgg 650
ctgctcacac atctgcactg acctcaagat tggctttgaa tgcacgtgcc 700
cagcaggctt ccagctcctg gaccagaaga cttgtggcga cattgatgag 750
tgcaaggacc cagatgcctg cagccagatc tgtgtcaatt acaagggcta 800
ttttaagtgt gagtgtacc ctggctgoga gatggacctt ctgaccaaga 850
actgcaaggc tgctgctggc aagagcccat ccctaattct caccaaccgc 900
acgagtgcgg aggatcgacc tgtgaagcgg aactattcac gcctcatccc 950
catgctcaag aatgtcgtgg cactagatgt ggaagttgcc accaatcgca 1000
tctactggtg tgacctctcc taccgtaaga tctatagcgc ctacatggac 1050
aaggccagtg acccgaaaga gcgggaggtc ctcatgacg agcagttgca 1100
ctctccagag ggctggcag tggactgggt ccacaagcac atctactgga 1150
ctgactcggg caataagacc atctcagtgg ccacagttga tggaggccgc 1200
cgacgcactc tcttcagccg taacctcagt gaaccccggg ccacgctgt 1250
tgacccctg cgagggttca tgtattggtc tgactggggg gaccaggcca 1300
agattgagaa atctgggctc aacggtgtgg accggcaaac actggtgtca 1350
gacaatattg aatggcccaa cggaatcacc ctggatctgc tgagccagcg 1400
cttgactgg gtagactcca agctacacca actgtccagc attgacttca 1450

gtggaggcaa cagaaagacg ctgatctcct ccactgactt cctgagccac 1500
 ccttttggga tagctgtgtt tgaggacaag gtgttctgga cagacctgga 1550
 gaacgaggcc attttcagtg caaatcggct caatggcctg gaaatctcca 1600
 tcctggctga gaacctcaac aaccacatg acattgtcat cttccatgag 1650
 ctgaagcagc caagagctcc agatgcctgt gagctgagtg tccagcctaa 1700
 tggaggctgt gaatacctgt gccttcctgc tcctcagatc tccagccact 1750
 ctcccaagta cacatgtgcc tgtcctgaca caatgtggct ggggtccagac 1800
 atgaagaggt gctaccgaga tgcaaatgaa gacagtaaga tgggctcaac 1850
 agtcactgcc gctgttatcg ggatcatcgt gcccatagtg gtgatagccc 1900
 tcctgtgcat gagtggatac ctgatctgga gaaactggaa gcggaagaac 1950
 accaaaagca tgaattttga caaccagtc tacaggaaaa caacagaaga 2000
 agaagatgaa gatgagctcc atataggag aactgctcag attggccatg 2050
 tctatcctgc acgagtggca ttaagccttg aagatgatgg actaccctga 2100
 ggatgggatc acccccttcg tgccctcatgg aattcagtc catgcactac 2150
 actccggatg gtgtatgact ggatgaatgg gtttctatat atgggtctgt 2200
 gtgagtgtat gtgtgtgtgt gatttttttt tttaaattta tgttgcgga 2250
 aggtaaccac aaagttatga tgaactgcaa acatccaaag gatgtgagag 2300
 tttttctatg tataatgttt tatacacttt ttaactgggt gcactacca 2350
 tgaggaattc gtggaatggc tactgctgac taacatgatg cacataacca 2400
 aatgggggcc aatggcacag taccttactc atcatttaaa aactatattt 2450
 acagaagatg tttggttgct ggggggcttt tttaggtttt gggcatttgt 2500
 tttttgtaaa taagatgatt atgctttgtg gctatccatc aacataagt 2549

<210> 64

<211> 1059

<212> DNA

<213> Homo sapien

<400> 64

ccgttccgcg ctctggcggc tcctcccggg cgatgcctcc gctctgggcc 50
 ctgctggccc tcggctgcct gcggttcggc tcggctgtga acctgcagcc 100
 ccaactggcc agtgtgactt tcgccaccaa caacccaca cttaccactg 150
 tggccttggga aaagcctctc tgcattgttg acagcaaaga ggccctcact 200

ggcacccacg aggtctacct gtatgtcctg gtcgactcag ccatttccag 250
 gaatgcctca gtgcaagaca gcaccaacac cccactgggc tcaacgttcc 300
 tacaacaga ggggtgggagg acaggtccct acaaagctgt ggcccttgac 350
 ctgatccctt gcagtgcctt gcccagcctg gatgccattg gggatgtgtc 400
 caaggcctca cagatcctga atgcctacct ggtcaggggtg ggtgccaacg 450
 ggacctgcct gtgggatccc aacttccagg gcctctgtaa cgcacccctg 500
 tcggcagcca cggagtagag gttcaagtat gtccctggta atatgtccac 550
 gggcttggtg gaggaccaga ccctgtgggtc ggaccccatc cgcaccaacc 600
 agctcacccc atactcgacg atcgacacgt ggccaggccg gcggagcgga 650
 ggcattgatc tcatcacttc catcctgggc tccttgcctt tctttctact 700
 tgtgggtttt gctggcgcca ttgccctcag cctcgtggac atggggagtt 750
 ctgatgggga aacgactcac gactcccaa tcatcagga ggctgttccc 800
 aagtcgctgg gggcctcgga gtcttccctac acgtccgtga accggggggc 850
 gccactggac agggctgagg tgtattccag caagctccaa gactgagccc 900
 agcaccaccc ctgggcagca gcacccctt ctctggcctt gccccaggcc 950
 ctgcagcggg ggttgtcaca cctgacttcc aggggaagggtg aaacagggct 1000
 tgtccctcca actgcaggaa aacccttaat aaaatcttct gatgagttct 1050
 aaaaaaaaa 1059

<210> 65
 <211> 1475
 <212> DNA
 <213> Homo sapien
 <220>
 <221> Unsure
 <222> 1391, 1399, 1418, 1421, 1431, 1446, 1449, 1456, 1463, 1469
 <223> Unknown base

<400> 65
 tctctgacca ccggtgcatg cagcccctgt cacataccgc ctgcttgcct 50
 aaatcaatca tgaccctttc atgtgaaatc tttagtattg tgagccctta 100
 aaagggacgg aaattgtgca tacgtggagc tcggatttta aggcagtagc 150
 tgcccgatgc tcccagctga ataaagccct tccttctaca atttggtgtc 200
 tgagggggtt tgtctgcggc tcgtcctgct acatttcttg gttccctgac 250
 cgggaagcaa ggtgactgac agacggccga ggcagccctt taggcggctt 300

aagcctgccc tgtggagcat ccctgcgggg gactccggcc agcctgagtg 350
acgcgatcca aagagtgtct ccgggtagga aattgccccg gtggaacgcc 400
tcgccagagc agcgtgtagc agggccccgc ggaggattaa cacagtggct 450
gaacaccggg aaggaactgg cacttggagt ccagacatct gaaacttgac 500
tgggagctgt acgtggatgg gagcagcttc accaaccctt gcaaagtgac 550
tctgaagaag acgacaagcc ctgctccagt cacaccggga agctgactgg 600
tccagcagc gccgaagcat gaggaactc atcgcaggac tcatttttct 650
taaattttgg acttatacag taagggtctt aactgacctt cctcagactg 700
agaactgttt ccagtatata catcaagtca ctgagatctc cagcaccttg 750
ccggtggcac tactgagaga cgaggtgccg ggggtggttc tgaaagtgcc 800
tgagccccaa cttatcagca aggagctcat catgctgaca gaagtcattg 850
aggtctggca tggcttagtg atcgcggtgg tgtccctctt cctgcaggcc 900
tgcttctca ccgccatcaa ctacctgtc agcaggcaca tggcccacaa 950
gagtgaacag atactgaaag cggccagtct ccaggttccc agggccagcc 1000
ctggccacca tcatccacct gctgtcaaag agatgaagga gactcagaca 1050
gagagagaca tcccaatgtc tgattccctt tacaggcatg acagcgacac 1100
accctcagat agcttggata gctcctgcag ttgcctcctt gcctgccagg 1150
ccacagagga tgtggattac acacaagtcg tcttttctga ccttgagaa 1200
ctaaaatgac tcccgcgtgg actatgagaa cataaaggaa atcacagatt 1250
atgtcaatgt caatccagaa agacacaagc ccagtttctg gtattttgtc 1300
aaccctgctt cttgtctgag ccagcggaat tatgatcaag tggccatgtg 1350
aattccaaat attttttaaa tggggtccag ttctctatgg ntttcttana 1400
atttaatttt gtaggggnaa ntgccatttt ncccccttta aacaanggnt 1450
tgggntaaa agntttttng ggcca 1475

<210> 66
<211> 2249
<212> DNA
<213> Homo sapien

<400> 66
aaacttttgc agcggctggg tagcagcacg tctcttgctc ctcagggcc 50
ctgccaggct tgccgagtc tgggactgct ctcgctccgg ctgccactct 100

cccgcgctct cctagctccc tgcgaagcag gatggccggg accgtgcgca 150
 ccgcgtgctt ggtggtggcg atgctgctca gcttggactt cccgggacag 200
 ggcagcccc cgccgccgcc gccggaagcc acctgtcacc aagtccgctc 250
 cttcttccag agactgcagc ccggactcaa gtgggtgccca gaaactcccg 300
 tgccaggatc agatttgcaa gtatgtctcc ctaagggcc aacatgctgc 350
 tcaagaaaga tggaagaaaa ataccaacta acagcacgat tgaacatgga 400
 acagctgctt cagtctgcaa gtatggagct caagttctta attattcaga 450
 atgctgcggt tttccaagag gcctttgaaa ttgttgctcg ccatgccaag 500
 aactacacca atgccatgtt caagaacaac taccgaagcc tgactccaca 550
 agcttttgag tttgtgggtg aatttttcac agatgtgtct ctctacatct 600
 tgggttctga catcaatgta gatgacatgg tcaatgaatt gtttgacagc 650
 ctgtttccag tcatctatac ccagctaag aaccagggcc tgctgattc 700
 agccttgga atcaatgagt gcctccgagg agcaagacgt gacctgaaag 750
 tatttgggaa tttccccaag cttattatga ccaggtttc caagtcaactg 800
 caagtcaacta ggatcttctt tcaggtctg aatcttgga ttgaagtgat 850
 caacacaact gatcacctga agttcagtaa ggactgtggc cgaatgctca 900
 ccagaatgtg gtactgctct tactgccagg gactgatgat ggtaaacc 950
 tgtggcggtt actgcaatgt ggtcatgcaa ggctgtatgg caggtgtggt 1000
 ggagattgac aagtactgga gagaatacat tctgtccctt gaagaacttg 1050
 tgaatggcat gtacagaatc tatgacatgg agaacgtact gcttggctc 1100
 ttttcaacaa tccatgattc tatccagtat gtccagaaga atgcaggaaa 1150
 gctgaccacc actattggca agttatgtgc ccattctcaa caacgccaat 1200
 atagatctgc ttattatctt gaagatctct ttattgacaa gaaagtatta 1250
 aaagttgctc atgtagaaca tgaagaaacc ttatccagcc gaagaaggga 1300
 actaattcag aagttgaagt ctttcatcag cttctatagt gctttgctg 1350
 gctacatctg cagccatagc cctgtggcg aaaacgacac cctttgctgg 1400
 aatggacaag aactcatgga gagatacagc caaaaggcag caaggaaatgg 1450
 aatgaaaaac cagttcaatc tccatgagct gaaaatgaag ggcctgagc 1500
 cagtggtcag tcaaattatt gacaaactga agcacattaa ccagctcctg 1550

agaaccatgt ctatgccc aa aggtagagtt ctggataaaa acctggatga 1600
 ggaagggttt gaaagtggag actgcggtga tgatgaagat gagtgcattg 1650
 gaggtctctg tgatggaatg ataaaagtga agaatacagct ccgcttcctt 1700
 gcagaactgg cctatgatct ggatgtggat gatgcgcctg gaaacagtca 1750
 gcaggcaact ccgaaggaca acgagataag cacctttcac aacctcgga 1800
 acgttcattc ccgctgaag cttctcacca gcatggccat ctcggtggtg 1850
 tgcttcttct tcttgggtga ctgactgcct ggtgcccagc acatgtgctg 1900
 ccctacagca cctgtgggtc ttctctgata aagggaacca ctttcttatt 1950
 ttttctatt tttttttttt tgttatcctg tatacctcct ccagccatga 2000
 agtagaggac taaccatgtg ttatgttttc gaaaatcaaa tggatctttt 2050
 tggaggaaga tacatttttag tggtagcata tagattgtcc ttttgcaaag 2100
 aaagaaaaaa aaccatcaag ttgtgccaaa ttattctcct atgtttggct 2150
 gctagaacat ggttaccatg tctttctctc tcaactccctc ctttctatc 2200
 gttctctctt tgcattgatt tctttgaaaa aaaataaatt gctcaaata 2249

<210> 67

<211> 3171

<212> DNA

<213> Homo sapien

<400> 67

gcggaacacc ggcccgccgt cgcggcagct gcttcacccc tctctctgca 50
 gccatggggc tccctcgtgg acctctcgcg tctctcctcc ttctccaggt 100
 ttgctggctg cagtgcgcgg cctccgagcc gtgccggggc gtcttcaggg 150
 aggtgaagt gaccttggag gcgggaggcg cggagcagga gcccggccag 200
 gcgctgggga aagtattcat gggtgcctt gggcaagagc cagctctgtt 250
 tagcactgat aatgatgact tcaactgtcg gaatggcgag acagtccagg 300
 aaagaaggtc actgaaggaa aggaatccat tgaagatctt cccatccaaa 350
 cgtatcttac gaagacacaa gagagattgg gtggttgctc caatatctgt 400
 ccctgaaaat ggcaagggtc ccttccccca gagactgaat cagctcaagt 450
 ctaataaaga tagagacacc aagattttct acagcatcac ggggcccggg 500
 gcagacagcc ccctgaggg tgtcttcgct gtagagaagg agacaggctg 550
 gttgttggtg aataagccac tggaccggga ggagattgcc aagtatgagc 600

tctttggcca cgctgtgtca gagaatggtg cctcagtgga ggaccccatg 650
aacatctcca tcatcgtgac cgaccagaat gaccacaagc ccaagtttac 700
ccaggacacc ttccgagggga gtgtcttaga gggagtccta ccagggtactt 750
ctgtgatgca ggtgacagcc acagatgagg atgatgccat ctacacctac 800
aatggggtgg ttgcttactc catccatagc caagaaccaa aggacccaca 850
cgacctcatg ttcacaattc accggagcac aggcaccatc agcgtcatct 900
ccagtggcct ggaccgggaa aaagtccctg agtacacact gaccatccag 950
gccacagaca tggatgggga cggctccacc accacggcag tggcagtagt 1000
ggagatcctt gatgccaatg acaatgctcc catgtttgac cccagaagt 1050
acgaggccca tgtgctgag aatgcagtgg gccatgaggt gcagaggctg 1100
acggtcactg atctggacgc ccccaactca ccagcgtggc gtgccaccta 1150
ccttatcatg ggcggtgacg acggggacca ttttaccatc accaccacc 1200
ctgagagcaa ccagggcata ctgacaacca ggaagggttt ggattttgag 1250
gccaaaaacc agcacacct gtacgttgaa gtgaccaacg aggcccttt 1300
tgtgtgaag ctcccaacct ccacagccac catagtggtc cacgtggagg 1350
atgtgaatga ggcacctgtg tttgtccac cctccaaagt cgttgaggtc 1400
caggagggca tccccactgg ggagcctgtg tgtgtctaca ctgcagaaga 1450
ccctgacaag gagaatcaaa agatcagcta ccgcatactg agagaccag 1500
cagggtggct agccatggac ccagacagtg ggcaggtcac agctgtgggc 1550
accctcgacc gtgaggatga gcagtttgtg aggaacaaca tctatgaagt 1600
catggtcttg gccatggaca atggaagccc tcccaccact ggcacgggaa 1650
cccttctgct aacactgatt gatgtcaacg accatggccc agtcctgag 1700
ccccgtcaga tcaccatctg caaccaaagc cctgtgcgcc acgtgctgaa 1750
catcacggac aaggacctgt ctccccacac ctccccttc caggcccagc 1800
tcacagatga ctacagatc tactggacgg cagagggtcaa cgaggaaggt 1850
gacacagtgg tcttgtccct gaagaagttc ctgaagcagg atacatatga 1900
cgtgcacctt tctctgtctg accatggcaa caaagagcag ctgacgggtga 1950
tcagggccac tgtgtgcgac tgccatggcc atgtcgaaac ctgccctgga 2000
ccctggaaag gaggtttcat cctccctgtg ctgggggctg tccctggctct 2050

gctgttcctc ctgctggtgc tgcttttggt ggtgagaaag aagcggaaga 2100
tcaaggagcc cctcctactc ccagaagatg acacccgtga caacgtcttc 2150
tactatggcg aagagggggg tggcgaagag gaccaggact atgacatcac 2200
ccagctccac cgaggtctgg aggccaggcc ggaggtgggt ctccgcaatg 2250
acgtggcacc aaccatcatc ccgacacca tgtaccgtcc taggccagcc 2300
aaccagatg aaatcggcaa ctttataatt gagaacctga aggcggctaa 2350
cacagacccc acagccccgc cctacgacac cctcttggtg ttcgactatg 2400
agggcagcgg ctccgacgcc gcgtccctga gctccctcac ctccctccgc 2450
tccgaccaag accaagatta cgattatctg aacgagtggg gcagccgctt 2500
caagaagctg gcagacatgt acggtggcgg ggaggacgac taggcggcct 2550
gcctgcaggg ctggggacca aacgtcaggc cacagagcat ctccaagggg 2600
tctcagttcc ccttcagct gaggacttcg gagcttgtca ggaagtggcc 2650
gtagcaactt ggcggagaca ggctatgagt ctgacgttag agtggttgct 2700
tccttagcct ttcaggatgg aggaatgtgg gcagtttgac ttcagcactg 2750
aaaacctctc cacctgggcc agggttgcct cagaggccaa gtttccagaa 2800
gcctcttacc tgccgtaaaa tgctcaaccc tgtgtcctgg gcctgggcct 2850
gctgtgactg acctacagtg gactttctct ctggaatgga accttcttag 2900
gcctcctggg gcaacttaat tttttttttt aatgctatct tcaaaacggt 2950
agagaaagtt cttcaaaagt gcagcccaga gctgctgggc ccaactggccg 3000
tcctgcattt ctgggtttcca gaccccaatg cctcccatte ggatggatct 3050
ctgcgttttt atactgagtg tgccataggt gccccattatt ttttattttc 3100
cctgttgctg tgctatagat gaagggtgag gacaatcgtg tatatgtact 3150
agaacttttt tattaaagaa a 3171

<210> 68

<211> 960

<212> DNA

<213> Homo sapien

<220>

<221> Unsure

<222> 404-475, 502, 510, 517, 531, 546, 552, 559, 569, 575, 583,
590-591, 702-751, 785-786, 791, 814, 826, 846, 886, 897, 932,
939

<223> Unknown base

<400> 68

gcgccttgcc cgcggccccc cggggcctca gggccgggga ccctcagcgc 50
tacctttttgc ctccggtctt gggactgtct gtggccgagg gcgtggccgg 100
cgctgcgtct ttgctgggtc acgtgcgcgc ccgtggccac tcccaggatg 150
ctgggtctctg cttgctgggt gggaccccgagg agccgtcagt ccacgcactc 200
ccggatgcac tcaacaacct aaggacgcag gagggttccg gggatgggtc 250
gagctcgctc gtagattgga atcgccctga agatgtagac cctcaaggga 300
tttatgtcat atctgtctct tccatctacg ctcgaggagt agcgacgccc 350
cttttccccc cgctacacac tgggcgcgct gggcagaggc agcacctgct 400
tttnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 450
nnnnnnnnnn nnnnnnnnnn nnnnnccggc gtggccggcg ctgcgtctct 500
gntgggtccan gtgcgcngcc gtggccaatc ncaggatgct gggtcncgct 550
tncgtggtng gaccccgng ccgtnagtcc acnactccn ngatgcactc 600
aacaacctaa ggacgcagga gggttcccg ggatgggtcc agctcgctcc 650
tagattggaa tcgcctgaa gatgtagacc ctacagggga gtgtatgtaa 700
tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 750
ntccgcacgt ggagtcagag cgtggatttt tgtanntgct nggtgggtgcc 800
cagtctctgc ccngagggt ttgganttca atcttgaagg ggtgtncgtg 850
gggaacttta ctgttgcaag ttgtaaataa tggttnttta tatcgtnttt 900
tttcgtcacc ccattctctga tagaaacacc tntaaaggnt attattgtga 950
gtcaaaaaaa 960

<210> 69

<211> 1686

<212> DNA

<213> Homo sapien

<400> 69

gcggcgactg cggcgaccgc gggacggcga gaggcacgcg gcgggagggg 50
accggaatcc gcagctccgg ccgcgccatg gacggcaacg acaacgtgac 100
cctgctcttc gcccctctgc tgcgggacaa ctacacctg gcgccaatg 150
ccagcagcct gggcccgagg acggacctcg ccctcgcccc tgctccagc 200
gccggccccc gccctgggt cagcctcggg ccgggtccga gcttcggctt 250
cagccccggc cccactccga ccccgagacc cagcaccagc ggctcgcgg 300

gcggcgcggc gagccacggc ccttccccgt tccctcggcc ctgggcgccc 350
 cacgcgctcc cgttctggga cacgccgctg aaccacgggc tgaacgtgtt 400
 cgtggcgccc gccctgtgca tcaccatgct gggcctgggc tgcacggtgg 450
 acgtgaacca cttcggggcg cacgtccgtc ggcccgtggg cgcgctgctg 500
 gcagcgctct gccagttcgg cctcctgccg ctgctggcct tctgctggc 550
 cctcgccttc aagctggacg aggtggccgc cgtggcggtg ctctgtgtg 600
 gctgctgtcc cggcggaat ctctccaatc ttatgtccct gctggttgac 650
 ggcgacatga acctcagcat catcatgacc atctcctcca cgcttctggc 700
 cctcgtcttg atgcccctgt gcctgtggat ctacagctgg gcttggatca 750
 acaccctat cgtgcagtta ctaccctag ggaccgtgac cctgactctc 800
 tgcagcactc tcatacctat cgggttgggc gtcttcattc gctacaaata 850
 cagccgggtg gctgactaca ttgtgaaggt ttcctgtgg tctctgctag 900
 tgactctggt ggtccttttc ataatagacc gcactatgtt aggacctgaa 950
 ctgctggcaa gtatccctgc agctgtttat gtgatagcaa tttttatgcc 1000
 tttggcaggc tacgcttcag gttatggttt agctactctc ttccatcttc 1050
 cacccaactg caagaggact gtatgtctgg aaacaggtag tcagaatgtg 1100
 cagctctgta cagccattct aaaactggcc tttccaccgc aattcatagg 1150
 aagcatgtac atgtttcctt tgctgtatgc acttttccag tctgcagaag 1200
 cggggatttt tgttttaatc tataaaatgt atggaagtga aatgttgac 1250
 aagcgagatc ctctagatga agatgaagat acagatatct cttataaaaa 1300
 actaaaagaa gaggaatgg cagacacttc ctatggcaca gtgaaagcag 1350
 aaaatataat aatgatggaa accgctcaga cttctctcta aatgtggaga 1400
 tacacaggag cttctatctt gctgaaatat tgcttcatat ttatagcctg 1450
 tggtagtgca catggttaac ataaaagata acactggttc acatcataca 1500
 tgtaacaatt ctgatctttt taagggtcac tgggtgatta accaaacggt 1550
 gtcacaaatt acaaatcaat gctgtaatat aatttgcacc tggaatggct 1600
 aacgtgaagc ctgaattaaa tgtgggtttt agtttttacc atcaccaaaa 1650
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 1686

<210> 70

<211> 2476

<212> DNA

<213> Homo sapien

<400> 70

cggccagcac accccggcac ctctctgcg gcagctgcg ctcgcaagcg 50
cagtgccgca gcgcacgccg gagtggctgt agctgcctcg gcgcggctgc 100
cgccctgcg cggtgtggg ctgcgggctg cgcctccgct gctggccagc 150
tctgcacggc tgcgggctct gcggcgccc gtgctctgca acgctgcggc 200
gggcggcatg ggataacgcg gccatggtgc gccgagatcg cctccgcagg 250
atgagggagt ggtgggtcca ggtggggctg ctggccgtgc cctgcttgc 300
tgcgtacctg cacatccac cccctcagct ctcccctgcc cttcactcat 350
ggaagtcttc aggcaagttt ttcacttaca agggactgcg tatcttctac 400
caagactctg tgggtgtggt tggaagtcca gagatagttg tgcttttaca 450
cggttttcca acatccagct acgactggta caagatttgg aagggtctga 500
ccttgagggt tcacgggtg attgcccttg atttcttagg ctttggcttc 550
agtgacaaac cgagaccaca tcaactattcc atatttgagc aggccagcat 600
cgtggaagcg cttttgcggc atctggggct ccagaaccgc agaatcaacc 650
ttctttctca tgactatgga gatattgttg ctccaggagct tctctacagg 700
tacaagcaga atogatctgg tcggcatacc ataaagagtc tctgtctgtc 750
aaatggaggt atctttcttg agactcaccg tccactcctt ctccaaaagc 800
tactcaaaga tggaggtgtg ctgtcaccga tctcacacg actgatgaac 850
ttctttgtat tctctcgagg tctcaccga gtctttgggc cgtatactcg 900
gccctctgag agtgagctgt gggacatgtg ggcagggatc cgcaacaatg 950
acgggaactt agtcattgac agtctcttac agtacatcaa tcagaggaag 1000
aagttcagaa ggcgctgggt gggagctctt gcctctgtaa ctatcccat 1050
tcattttatc tatgggcat tggatcctgt aaatccctat ccagagtttt 1100
tggagctgta caggaaaacg ctgcgcgggt ccacagtgtc gattctggat 1150
gaccacatta gccactatcc acagctagag gatcccatgg gcttcttgaa 1200
tgcatatatg ggcttcatca actccttctg agctggaaag agtagcttcc 1250
ctgtattacc tcccctactc ccttatgtgt tgtgtattcc acttaggaag 1300
aaatgcccaa aagaggtcct ggccatcaaa cataattctc tcacaaagtc 1350

cactttactc aaattgggtga acagtgtata ggaagaagcc agcaggagct 1400
 ctgactaagg ttgacataat agtccacctc ccattacttt gatatactgat 1450
 caaatgtata gacttggctt tgttttttgt gctattagga aattctgatg 1500
 agcattacta ttcactgatg cagaaagacg ttcttttgca taaaagactt 1550
 ttttttaaca ctttggactt ctctgaaata tttagaagtg ctaatttctg 1600
 gcccaccccc aacaggaatt ctatagtaag gaggaggaga aggggggctc 1650
 cttccctctc ctggaatgac gttatgggca catgcctttt aaaagttctt 1700
 taagcaacac agagctgagt cctctttgtc atacctttgg atttagtggt 1750
 tcatcagctg ttttttagtta taaacatttt gttaaaatag atattgggtt 1800
 aatgatata gtatttttagg tatgatttaa gactatgatt tacctatata 1850
 ttatatatat ttataaaaga tactaaacca gcataccctt actctgccag 1900
 agtagtgaag ctaattaaac acgtttgggt tctgaataaa ttgaactaaa 1950
 tccaaactat ttcctaaaat cacaggacat taaggaccaa tagcatctgt 2000
 gccagagatg tactgttatt agctgggaag accaattcta acagcaaata 2050
 acagtctgag actcctcata cctcagtggt tagaagcatg tctctcttga 2100
 gctacagtag aggggaaggg attgttgtgt agtcaagtca ccatgctgaa 2150
 tgtacactga ttcctttatg atgactgctt aactccccac tgctgtccc 2200
 agagaggctt tccaatgtag ctcaagtaatt cctgttactt tacagacagg 2250
 aaagttccag aaactttaag aacaaactct gaaagacctt tgagcaaatg 2300
 gtgctgaata cttttttttt aaagccacat ttcattgtct tagtcaaagc 2350
 aggattatta agtgattatt taaaattcgt ttttttaaat tagcaacttc 2400
 aagtataaca actttgaaac tggataaagt gtttattttc tattaataaa 2450
 aatgaattgt gacaaaaaaa aaaccg 2476

<210> 71
 <211> 5724
 <212> DNA
 <213> Homo sapien

<400> 71
 cgggtggaca agtcacctgt ctaactgtgg tgagagcaac aggcctccaa 50
 aggaaagaag ttgtttccga gtttgtgact ggcacagtga cctctttcag 100
 tgggaggttt ctgactggca ccactgtgtg cttgttcctt acgctcgcg 150

tgaagtcaag cctcggactg cagagtgtgt gacggctcag catggactgc 200
 agcaccggat ggtgcgctgc attcagaagc tgaaccgaac tgtggttgca 250
 aatgaaatat gcgaacactt tgcccttcag cctcctacag aacaggcttg 300
 cctcattcct tgtccccggg attgtgtagt atctgagttc ttaccatggt 350
 ccaactgtag caagggatgt gggaagaaat tgcagcatag aactcgcgcg 400
 gtcatagctc cccctctctt tgggtggttg caatgtccaa atctgactga 450
 gtcaagagcc tgtgatgctc ccatttcttg tctcttggg gaagaggaat 500
 atacatttag ccttaagggt ggaccatgga gtaaattgcag actgcctcat 550
 cttaaagaaa ttaatccaag cggaagaact gttctggatt ttaactctga 600
 ttcaaagag cgagtcacct ttaaacaatca aagttacaaa gcacatcatc 650
 attcgaagtc ttgggcaata gagatagggt atcaaaccgc gcaggtttcg 700
 tgtacaagaa gtgatggaca aaatgctatg ttaagccttt gccttcaaga 750
 ttccttccca ttgactgttc agtcctgcat catgccccaa gactgtgaaa 800
 cctcccagtg gtctctctgg agcccctgct ccaagacatg ccgttcaggg 850
 agtctcttgc caggatttag gagcaggagc cggaacgtga agcacatggc 900
 tattggaggt ggaaaggagt gtctgaact tcttgagaaa gaggcctgca 950
 ttgttgaagg agaacttctg cagcaatgtc ccaggatttc ctggagaact 1000
 tctgaatgga aagaatgcca agtctctctc ctctctgagc agcaggatcc 1050
 ccactggcat gtgacgggac ccgtgtgtgg cgggtgggac cagacccggg 1100
 aggtgtactg tgcccagagc gtaccagcag ctgccgcact gagggccaag 1150
 gaagtctcta gacctgtgga aaaggcatta tgtgtgggac ccgccccgtt 1200
 gccctctcag ctctgcaata tcccttgctc tacggactgc atagtatctt 1250
 cctggtcagc ctggggcctg tgcatccatg aaaactgtca tgaacctcag 1300
 gggaaaaaag gatttagaac gaggcagcgc catgtcctca tggaatctac 1350
 agggcctgca gggcattgcc ctcatctggt ggagtctgtt ccttgtgagg 1400
 atccaatgtg ctaccgatgg ctggcatcag aagggatctg tttccctgat 1450
 catggaaaat gtggcctggg acatcgatt ctgaaggccg tctgccagaa 1500
 tgaccgcgga gaagatgtat caggaggtct ttgccagtt cccctctc 1550
 ctgagaggaa gtcttgtgaa attccctgcc gaatggactg tgtgctgagc 1600

gagtggacgg agtgggtcatc ctgttcccag tcctgttcaa ataaaaactc 1650
 agatgggaaa cagaccaggt caagaactat cctggcactg gctggggaag 1700
 gtggaaagcc atgtccccct agtcaggctc tccaagagca tcgtttgtgt 1750
 aatgaccatt cctgtatgca gcttactgg gagacatcg cttggggccc 1800
 ttgttctgag gacacattgg taactgccct taatgcaacc attggctgga 1850
 atggagaagc cacgtgtggg taggcattc agactcggag agtcttctgt 1900
 gtcaagagtc acgtgggaca agtaatgacc aaaagatgtc cagattctac 1950
 tcgacctgaa actgtgcgcc cctgttttct cccatgcaaa aaagactgta 2000
 ttgtgactgc tttcagtggg tggacaccct gccaaggat gtgccaagca 2050
 ggaaatgcca cagtaaaaca gtctcgatac agaatcatca tccaagaagc 2100
 agccaatgga ggccaggaat gccagatac cttatatgag gagagagagt 2150
 gtgaagatgt ttcttgtgt cctgtatatac ggtggaagcc acagaaatgg 2200
 agcccttgca tcttagtgcc agagtctgtc tggcagggaa taacgggcag 2250
 cagtgaagcc tgtggaaagg ggttacaac aagagctgtc tcatgcatct 2300
 ctgatgacaa ccggtcagca gaaatgatgg aatgcctcaa gcagacaaac 2350
 ggcatgcctc tccttgtgca agaatgcaca gtcccatgtc gagaagactg 2400
 caccttcaact gcttgggtcca agtttacgcc ctgctccacg aactgtgaag 2450
 ccacaaaaag tagggcgga cagctcacag ggaaaagcag aaagaaggag 2500
 aatgccagg attctgacct ttacctcta gtggagacag aactatgtcc 2550
 ttgtgatgaa tttatatccc aacctatgg aaactggtca gattgcattc 2600
 ttccagaagg cagaaggag cctcacag gactgcgggt acaagcagac 2650
 agcaaagaat gtggagaagg cctgcgctt cgagcagtag cctgttctga 2700
 taaaaatgga agacctgttg accctcctt ctgcagcagc tctgggttaca 2750
 ttcaagaaaa atgtgtcatt cctgcccatt ttgattgcaa gttaagcagat 2800
 tggctagtt gggggtcttg cagttcatct tgtggaattg gagtgagaat 2850
 tcgatccaaa tggctaaaag aaaaacctta caatggagga cgaccatgtc 2900
 ccaaactgga tctcaagaat caggctcagg tacatgagga agtcccatgt 2950
 tacagtgagt gcaatcagta ttctgggtt gtagaacact ggtcttcatg 3000
 caaatcaac aatgagctga ggtccctgcg ctgtggagga ggaacacaat 3050

ctaggaaaat cagatgtgtg aatactgcgg atggtgaagg tggagcagtg 3100
 gatagcaacc tgtgcaacca ggatgaaatt cccccagaaa cccagtcctg 3150
 ttctcttatg tgtcccaatg agtgtgtcat gtctgagtgg ggactttgga 3200
 gcaaatgccc acagtcatgc gatccccaca caatgcagag aagaactcgc 3250
 cacctgctaa gaccatcact gaactcaagg acttgtgctg aagactcaca 3300
 ggtgcagcct tgccctcctga atgaaaattg cttccagttc cagtacaatc 3350
 taacagagtg gagcacatgc cagctgagtg aaaacgcacc ctgtggtcaa 3400
 ggcgtcagga cccgcctgct aagctgtgtg tgcagtgatg gcaagccagt 3450
 cagcatggac caatgtgagc agcataatth ggagaagccc cagagaatga 3500
 gcattccctg cttggtggaa tgcgtggtca actgtcagct ctcaggggtg 3550
 acggcttggc cagagtgttc acagacctgt ggccatggag gtcgaaatgag 3600
 ccggactcga tttatcatta tgccaacca aggagaagga cggccatgcc 3650
 ccacagagct taccaggag aaaacctgcc cagtgaacccc ctgctacagc 3700
 tgggtccttg gcaactggtc tgcattgaaa ttggagggtg gagactgtgg 3750
 ggaaggagtt cagatccgca gcctttcctg catgggtccac agtggttcaa 3800
 tatctcatgc agctggacgt gtcgaggatg cactgtgtgg agaaatgcc 3850
 tttcaggaca gcattcctgaa gcagctgtgt tctgtgcctt gccaggaga 3900
 ctgccattta acagaatggt cagagtggag cacatgtgaa ttaacctgca 3950
 ttgatggaag aagctttgag actgtgggccc gccagtctag atcaaggact 4000
 tttataattc agtcttttga gaaccaagac agctgcccc aacaggttct 4050
 agaaacacgc cttgttacag gaggcaaatg ttatcaactac acatggaaag 4100
 caagtctttg gaacaataac gaacgaactg tatggtgcca gcgttcagat 4150
 ggcgttaatg tcacaggagg ctgctccctc caggcccgct ctgctgccat 4200
 tcggcagtgc attccagcct gcagaaaacc tttctcctac tgtacacagg 4250
 gtggagtctg tggttgtgag aagggtata cagagataat gagatcaa 4300
 ggtttcctgg attactgcat gaaagtacca ggctcagagg ataaaaaagc 4350
 tgatgtgaaa aacctttctg ggaaaaacag acctgtgaat tcaaaaatac 4400
 atgatatttt taaaggatgg tctcttcaac cacttgatcc agatggccga 4450
 gtaaaaattt gggtttatgg cgtttcaggt ggcgcttttc tcatcatgat 4500

tttcctaata tttacttcct accttgtttg caagaagcca aaaccacatc 4550
 aaagcacacc tccccaacag aagcctctga ccttagccta cgatggagac 4600
 ttagacatgt aatctgaaaa agaaatccaa atgtagacat caactgcctt 4650
 aaccgctttc tcttttgtag ctctcagact tctcagtttt ttgaggaatc 4700
 tcaagatgtg atatattggg cagaatacaa atattgcaaa agtaatattg 4750
 cctcaacttc atttgacat ggagtcaagg attattaggt ctgccatttt 4800
 gttttcaagt tgtttgtggg tgtgttttat ttttttggtt ttcccaaggg 4850
 acctgaaaac ccttctcttc ctgtttgga ctgggaggaa gaaaacatga 4900
 tgggaattccc acagacttga gtaaacttga tcttcagcag cataatgaca 4950
 atccagagga aaatacagtc aaggcattta ctctaaatga cgagtctgac 5000
 actgcattgt tacgcactat attagtcaa agtctttatt cttcccatac 5050
 ttcaacactg agttttctag agtttacttt ggtttaaaga ctttcaaatt 5100
 ggattgccta tttttcatga acacagagag aatggattac catttcagaa 5150
 attctctgag tttttaacct ttaaattattg tattttgttt tgtagccagg 5200
 ggatgatggc gcttcatggg ttgcagctac tgaaaatagc agcgtgtgtg 5250
 taattgctgg actagatgaa agctaggtca tttctgaagg gaatgtgtac 5300
 tgaatgtag agtgtacaaa tgaaatatgt ggtaaattg gagaatgagg 5350
 tagattatth gattactaaa actgtattht aacaaaaact tatccatgta 5400
 gatatagcat taaccacaca cagttgtaat tcagtttaat gatgacaaac 5450
 tctgcttttg taatttcaat tttcttatct gaatatttat aaattcttct 5500
 ttcaaattta attatctgac ctcattht atacatcaaa caccgatcct 5550
 gtttgtacaa agtcttgctt ttataagggt tcaataatat ctaaaacaac 5600
 acattaaaaa gctgagacca ttttatgaag ataattgttt gtaatcatag 5650
 gtgttgaaag taaaaagggt ccatcttggt gtattgactt gtatttataa 5700
 caaataaact gctcaagaga ctgc 5724

<210> 72

<211> 4450

<212> DNA

<213> Homo sapien

<400> 72

cccacctcgg ccacactgct tcgctcccc ctccccacct tcagctggca 50

ccgcaaacaa gccttacctc gttgcatctg cgaggagagg tagcaacagc 100
 gagcctagcc agccagagggc ggtggagagg aggaaggggc ggggtggggg 150
 ggcagagagc gggccgagggc cgcccttggg gggggtagcg ggggcagagc 200
 tgccgagcag acccggcagc cgccctcctc cgccccacc ctccagaagc 250
 actcttgctt gagaaccgaa ttattccact agtattatit cattttttat 300
 tactccccct cctcactccc cagccgcccc cccccccacg ccggcctcgc 350
 ctctggttgc atggcagcgc tgcccgggcg cgggggctca gggctggccc 400
 ccaggaagg gggaggagga ggaggatcat gaaggccgga gtcgcgaccg 450
 cgccggacgg cgggcagcag ccagaggacg agccggagca gcccccgccc 500
 cggagacacc cggacgccga gcagcagtcg cctccgccgc cgcagcagca 550
 gctgcgggcg cgggcccacc cggagccgga ggaggagggc gaccgcgacc 600
 cagaggagga agaggaggag aaggcgaggc cactcgcccg ccgggacctg 650
 cccttctctc ggctcttgcc cctcgaccga agggaccttt gatggaaccg 700
 aggggagggc gccacggatt tgccgactgc agcaggggtg ggctgggggc 750
 tgagataatg taaccactcc ttctcctgt tctctcccac acgccccct 800
 cctctacccc tattctctgc tccactgcc tctcaccocg gtacacacac 850
 ccttctctta gccaggatct tcatgctcag gaaggaggcg cctctgcaag 900
 ggttaaacga tcttttcttt ttctccatc ctttttctt cccaaacctc 950
 tattttacct cccttctcct aattggcttt cccctcttcg gtgtaacct 1000
 ttggctgcgg aggc aaagca caagcccta gccagtttc acctgcaaca 1050
 cccctcccc acccaactgc tctottaata gcaactctgg tgcttctggg 1100
 ggttaattgc ccagttttc tgcccaggag aattaaaact tctcccaatc 1150
 ttctctctc ccctacctg actccccaa cccctaccac ctgagaaaaa 1200
 cgatcttttc tctctcacac atgcagtcct caattcttca ttgagctagt 1250
 tttctctaag ccagctcaa tccactccag atttgattta caattgtccc 1300
 caccctttta tataaaagaa agatttctca ctgcgtagga atttgagaag 1350
 aaccaataa tcctttctg gggaaacttt aaacaattcg acattgattt 1400
 aaacaattcg acagaggctc tagtggcccc tccaccacgc ttcttcaatc 1450
 cctctgctcc taccagtgtc ctcaggtaaa aagcagaaag gagacacact 1500

gaacaaagtt ggaggttggg gtgggtgtgt gagggcaaga aaaacttttt 1550
 tgttattggg ctttccaggt ggagttcaga accagtgact cacacttctc 1600
 agtcctggga gcaattttatt tgctacttgg aggggttgta agaaaagcca 1650
 gtgagaaagc agactcccc cacaacacag atccactgtg gacccccaaa 1700
 acctgtcctg tccccctctt ttaagactcc agccaccctt cttgggctct 1750
 ctacttccac ggggcacatg ctgatgcccc tgtgtgggct gctctggtgg 1800
 tgggtggtgct gctgctccgg ctggtactgc tatggattgt gtgccccagc 1850
 cccccagatg ttgcgccacc agggctctct caagtgccgc tgccgcatgc 1900
 tcttcaatga cctgaaggtt ttcttactgc ggcgccctcc tcaagcgccc 1950
 ctgccccatgc acggcgaccc ccagcccccc ggtttggcgg ccaacaacac 2000
 ccttccggct ctgggcgcgc ggggggtgggc aggctggagg ggcccccgag 2050
 aagtgggtggg cagggagccc cctcctgtgc cacctccacc ccccttgcca 2100
 ccttcttctg tggaagatga ctgggggtggc ccagccacag agccacctgc 2150
 ctgctgctc agcagtgcct cctcagatga cttctgtaag gagaagaccg 2200
 aggatcgcta ctactgggc agcagcttgg acagtggat gaggacccca 2250
 ctctgccgca tctgcttcca ggggccagaa caggggggagc tgctgagccc 2300
 atgccgctgt gatggctcgg tcaagtgcac acaccagcct tgcctcatca 2350
 agtggatcag cgagcggggc tgctggagct gcgagctgtg ctactacaag 2400
 taccagtcga tggccataag cacaaaaaat cctctgcagt ggcaggccat 2450
 ctctctgacg gtcattgaga aggttcaggt tgcagccgc atcctgggct 2500
 ccctcttct catcgccagt atttcttggc tcatctggtc aactttcagc 2550
 ccctcggcaa gatggcagcg ccaagacct ctcttcaga tctgctacgg 2600
 gatgtatggc ttcattgacg tgggtgtgcat aggtctcatc atccatgaag 2650
 gacctcggt gtaccgcac tttaaacggt ggcaggctgt caaccagcag 2700
 tggaaagtgc tgaactatga caagacaaa gacctggagg atcaaaaggc 2750
 aggaggcagg accaaccctt ggacctctc atccaccag gccaatatcc 2800
 cctcctcgga agaggagacc gcaggcacc ctgcccctga gcagggccct 2850
 gccaggctg ccggccaccc ctcaggccct ctgtcccatc accactgtgc 2900
 ttataccatc ctgcacatcc tgagtcactt gagacctcat gaacagcgaa 2950

gtccccccagg cagcagccga gagctggtca tgagagtcac gacagtgtga 3000
 gagcagaggc ccggaaggaa ggccatgacc accactgagg gcccgagca 3050
 ggggtggggag gtgcagtggc acccccggag ccaacagagg gagcaggcag 3100
 aggggtggggg acctggcggg agccctgggg tagtgtcaga gcgggagtga 3150
 ggctggtgca ggagcagttc tgctatttcc aatcagtcaa tgccactctc 3200
 cacaacaaca atgaaaacca acaccaactc aacaacaaag tgcaatacag 3250
 gctgaacctg gcccaacaga aaaaccctgc cccaatgcac ctgcaggcaa 3300
 ggtacccgaa gaagcagagg ctgagggcag gcaaagcctg tgtgactgtg 3350
 gcagtgccgg aggccaaagg ggccaagagg aaaagcatct gtggtctgcc 3400
 ctgctctcac cctgtttggt tttgtttctc ctggggctgt gttctgcagg 3450
 cagccagaaa aggaggaggc acgggtgagc tggcagggac aactgcctt 3500
 tggggctcct gggctcattt ggatgagcaa gattcgctga caaatggctg 3550
 tggggatggt ggggtggatg gtcagggagg gatcctcagg gagggatatg 3600
 ctggtgtgag cagccagagg gagagtgtgt ctccctcctg aaggaaactc 3650
 caaatggaac tcccgatttc aggtgggcta aaagagggct taggtttgga 3700
 aaaggggtgc cttctgtgcc cttgttaatt tattttatag tgatttggtt 3750
 caaagatggt tacaggacac acacacacac acacacacac acacacacac 3800
 acacacaccc ctagagaaaa gtacagattt ccagtggata tttcaagcac 3850
 agttctgctg ctgtggcttc agctttggaa gctgtcaatc ccggagcaac 3900
 tttcccaact acccaacccc accatggcca ggacatgtgc aatgccagcc 3950
 ccttcttgtc ttggcacatg cacagaccca gtccctcac ggtagggcac 4000
 ccctgaccta cgggcttcca agagagcagc tgcagtgggt gggaggagct 4050
 tgaccagtgt gccccaaagga gtggagtaga gcccattcta agtattcctt 4100
 gctgcttga accctccctg tttggaaccc tccccaaaga ggcagtcagg 4150
 ctgatgctca gtgctttgtg ctccctgctc cttcccgcgt agccaggtgg 4200
 gccccagggg gcctggcagg gagcactacc cctggacccc tctgctcgc 4250
 tctggggacc ctgccaggga aggcactgg gtgttcacct gcaaagtctc 4300
 tggttgtcac tgcacagtgg tcgcgtcatc catgggtatt aaaaggacac 4350
 tgtcaagtac ttttttaaac tagtttttag ggttttttaa aactctctgt 4400

tgtttgtaat attctcttaa aagcttgaaa ataaaaacttc tttccctacc 4450

<210> 73

<211> 3758

<212> DNA

<213> Homo sapien

<400> 73

caggagcaag gggacaagat gatggaggaa tacagcctgg agaaaaatga 50
gagggcctgc attgatttcg ccatcagcgc caagccgctg acccgacaca 100
tgccgcagaa caagcagagc ttccagtacc gcatgtggca gttcgtggtg 150
tctccgcctt tcgagtacac gatcatggcc atgacgccc tcaacaccat 200
cgtgcttatg atgaagttct atggggcttc tgttgcttat gaaaatgccc 250
tgcgggtggt caacatcgtc ttcacctccc tcttctctct ggaatgtgtg 300
ctgaaagtca tggcttttgg gattctgaat tatttccgcg atgcctggaa 350
catcttcgac tttgtgactg ttctgggcag catcacgat atcctcgtga 400
ctgagtttgg gaataacttc atcaacctga gctttctccg cctcttccga 450
gctgcccggc tcatcaaact tctccgtcag ggttacacca tccgcattct 500
tctctggacc tttgtgcagt ccttcaaggc cctgccttat gtctgtctgc 550
tgatcgccat gctcttcttc atctatgcc aattgggat gcagggtgtt 600
ggtaacattg gcatcgacgt ggaggacgag gacagtgatg aagatgagtt 650
ccaaatcact gagcacaata acttccggac cttcttccag gccctcatgc 700
ttctcttccg gagtgccacc ggggaagctt ggcacaacat catgctttcc 750
tgccctcagc ggaaaccgtg tgataagaac tctggcatcc tgactcgaga 800
gtgtggcaat gaatttgctt atttttactt tgtttccctt atcttccctt 850
gctcgtttct gatgctgaat ctctttgtcg ccgtcatcat ggacaacttt 900
gagtacctca cccgagactc ctccatcctg ggccccccacc acctggatga 950
gtacgtgcgt gtctgggccc agtatgaccc cgcagcttgc ggtcggattc 1000
attataagga tatgtacagt ttattacgag taatatctcc cctctcggc 1050
ttaggcaaga aatgtcctca tagggttgct tgcaagcggc ttctgcggat 1100
ggacctgccc gtcgcagatg acaacaccgt ccacttcaat tccacctca 1150
tggtctgat ccgcacagcc ctggacatca agattgcaa gggaggagcc 1200
gacaaacagc agatggacgc tgagctgcgg aaggagatga tggcgatttg 1250

gcccaatctg tcccagaaga cgctagacct gctggtcaca cctcacaagt 1300
 ccacggacct caccgtgggg aagatctacg cagccatgat gatcatggag 1350
 tactaccggc agagcaaggc caagaagctg caggccatgc gcgaggagca 1400
 ggaccggaca cccctcatgt tccagcgcac ggagcccccg tccccaacgc 1450
 aggaaggggg acctggccag aacgcctcc cctccacca gctggacca 1500
 ggaggagccc tgatggctca cgaaagcggc ctcaaggaga gcccgctctg 1550
 ggtgaccag cgtgccagg agatgttcca gaagacgggc acatggagtc 1600
 cggacaagg cccccctacc gacatgcccc acagccagcc taactctcag 1650
 tccgtggaga tgcgagagat gggcagagat ggctactccg acagcgagca 1700
 ctacctccc atggaaggcc agggccgggc tgctccatg ccccgctcc 1750
 ctgcagagaa ccagaccatc tcagacacca gcccattgaa gcgttcagcc 1800
 tccgtgctgg gcccgaaggc ccgacgctg gacgattact cgtggagcg 1850
 ggtccgccc gaggagaacc agcggcacca ccagcggcg cgcgaccgca 1900
 gccaccgcg ctctgagcgc tccctgggccc gctacaccga tgtggacaca 1950
 ggcttgggga cagacctgag catgaccacc caatccgggg acctgccgtc 2000
 gaaggagcgg gaccaggagc ggggcccggc caaggatcgg aagcatcgac 2050
 agcaccacca ccaccaccac caccaccacc acccccgcc ccccgacaag 2100
 gaccgctatg cccaggaacg gccggaccac ggcggggcac gggctcggga 2150
 ccagcgtgg tcccgtcgc ccagcgagg ccgagagcac atggcgacc 2200
 ggcagggcag tagttccgta agtggaaagc cagccccctc aacatctggt 2250
 accagcactc cgcggcgggg ccgcgccag cccccccaga cccctccac 2300
 cccccggcca cagtgctct attcccctgt gatccgtaag gccggcggct 2350
 cggggcccc gcagcagcag cagcagcagc agcagcagca gcagcaggcg 2400
 gtggccaggc cgggcccggc ggccaccagc ggccctcgga ggtaccagc 2450
 cccacggcc gagcctctgg ccggagatcg gccgccacg gggggccaca 2500
 gcagcggccg ctgcccagg atggagaggc gggctccagg cccggcccgg 2550
 agcgagtccc ccagggcctg tcgacacggc gggggccggt ggccggcatc 2600
 tggccgcac gtgtccgagg ggccccggg tccccggcac catggctact 2650
 accggggctc cgactacgac gaggccgatg gcccgggcag cgggggcggc 2700

gaggaggcca tggccggggc ctacgacgcg ccaccccccg tacgacacgc 2750
gtcctcggggc gccaccggggc gctcgcccag gactccccgg gcctcggggc 2800
cggcctgcgc ctgccttct cggcacggcc ggcgactccc caacggctac 2850
tacccgggcg acggactggc caggccccgc gggccgggct ccaggaaggg 2900
cctgcacgaa ccctacagcg agagtgaaga tgattggtgc taagccccgg 2950
cgagggtggcg cccgcccggc cccccacgca cccacgcac acaccccacc 3000
cgaggagccg cgcagaggcc gcggggggccc agcacagagg gcccgggaga 3050
gggccagccg ggagacccca gactctggag aggccagggc tggggcaca 3100
gggtgtcccg cagagaccct cggccaaaag agaccctcct gggcagccac 3150
ggcgcccccc aaccagcccc gatcccccca cccacgacag gggctctcgg 3200
gtgggaggca gggagcagac aaaccacaca gccaaaggat ttgaattaac 3250
tcagccattt ttggagaact ttgggaaca tgaaaaaaaa aaaaaaaaaa 3300
aaaaaaaaacat ttttaaaaga aaaaacgggg agaaaaaaat agcttctatt 3350
gatgagtttt atcatctcaa ttgaatcttt ctttccctg atgaagacag 3400
ctggtggccg agtgccgcaa agaagccaga aggaaccaga atcccagtgc 3450
cctacacca ccaccagaca cactcacacc cacacacgtt ctgagacaca 3500
cacaagagtg cttgccgggt ataccaaacc ctactattac tgccctgcaga 3550
aatcaattta aaaaaataat aataacaata aacaatttta aaaaggacaa 3600
aaaaattaat gattgagaaa agaggcattt ttttctgaca tttggtcctg 3650
cttgaaacaa caaagaaga agaaaaacc accatcacca ccgattcctt 3700
tgcttctttt ttcctttttt cctaccttgt ttgaaaaccg tgggcttggg 3750
actgtgaa 3758

<210> 74

<211> 4306

<212> DNA

<213> Homo sapien

<400> 74

ctgcccctgg gtctctgcgc ctttgcata gactttacgg taagccgctc 50
ctcccgcgcc cccgccccca gcccgcctcg gcgatccccg gcgcccgtgc 100
caggcgctgg ccgtggtgct gattctgtca ggcgctggcg gcggcagcgg 150
cggtgacggc tgccggcccc ctccctctac ccggccggac ccggctctgc 200

ccccgagccc aagccccacc aagccccccg ccctcccgcc gcggtcccag 250
cccagggcgc ggccgcaacc agcaccatgc gcccggtagc cctgctgctc 300
ctgccctcgc tgetggcgct cctggctcac ggactctctt tagaggcccc 350
aaccgtgggg aaaggacaag cccagggcat cgaggagaca gatggcgagc 400
tgacagcagc cccacacact gagcagccag aacgaggcgt ccactttgtc 450
acaacagccc ccaccttgaa gctgctcaac caccacccgc tgcttgagga 500
attcctacac gaggggctgg aaaagggaga tgaggagctg aggccagcac 550
tgtcctttca gctgaccca cctgcaccct tcacccaag tccccttccc 600
cgctggcca accaggacag ccgcccgtgc tttaccagcc cactccagc 650
catggctgcg gtacccactc agccccagtc caaggaggga ccctggagtc 700
cggatccgga gtcagagtcc cctatgcttc gaatcacagc tcccctacct 750
ccagggccca gcatggcagt gccacccta ggcccagggg agatagccag 800
cactacaccc ccagcagag cctggacacc aaccaagag ggtcctggag 850
acatgggaag gccgtgggtt gcagagggtg tgtcccaggg cgcagggatc 900
gggatccagg ggaccatcac ctctccaca gcttcaggag atgatgagga 950
gaccaccact accaccacca tcatcaccac caccatcacc acagtccaga 1000
caccaggccc ttgtagctgg aatttctcag gccagaggg ctctctggac 1050
tcccctacag acctcagctc ccccactgat gttggcctgg actgcttctt 1100
ctacatctct gtctaccctg gctatggcgt ggaaatcaag gtcaagaata 1150
tcagcctccg ggaaggggag acagtgactg tggaaggcct gggggggcct 1200
gaccactgc ccctggccaa ccagtcttct ctgctgcggg gccaaagtc 1250
ccgcagcccc accaccaag cggccctgag gttccagagc ctcccgccac 1300
cggtggccc tggcaccttc catttccatt accaagccta tctcctgagc 1350
tgccacttct cccgtcgtcc agcttatgga gatgtgactg tcaccagcct 1400
ccaccagggg ggtagtgcgc gcttccattg tgccactggc taccagctga 1450
agggcgccag gcatctcacc tgtctcaatg ccaccagcc cttctgggat 1500
tcaaaggagc ccgtctgcat cggtagagtgc ccaggggtga tccgcaatgc 1550
caccaccggc cgcctcgtct ctccaggctt cccgggcaac tacagcaaca 1600
acctcacctg tcactggctg cttgaggctc ctgagggcca gcggctacac 1650

ctgcactttg agaaggtttc cctggcagag gatgatgaca ggctcatcat 1700
 tcgcaatggg gacaacgtgg agggcccacc agtgtatgat tcctatgagg 1750
 tggaaatacct gccattgag ggccctgctca gctctggcaa acacttcttt 1800
 gttgagctca gtactgacag cagcggggca gctgcaggca tggccctgcg 1850
 ctatgaggcc ttccagcagg gccattgcta tgagcccttt gtcaaatacg 1900
 gtaacttcag cagcagcaca cccacctacc ctgtgggtac cactgtggag 1950
 ttcagctgcg accctggcta caccctggag cagggctcca tcatcatcga 2000
 gtgtgttgac cccacgacc ccagtgga tgagacagag ccagcctgcc 2050
 gagccgtgtg cagcggggag atcacagact cggctggcgt ggtactctct 2100
 cccaactggc cagagcccta cggctcgtggg caggattgta tctgggggtgt 2150
 gcatgtggaa gaggacaagc gcatcatgct ggacatccga gtgctgcgca 2200
 taggccctgg tgatgtgctt accttctatg atggggatga cctgacggcc 2250
 cgggttcttg gccagtactc agggccccgt agccacttca agctctttac 2300
 ctccatggct gatgtacca ttcagttcca gtcggacccc gggacctcag 2350
 tgctgggcta ccagcagggc ttcgtcatcc acttctttga ggtgccccgc 2400
 aatgacacat gtccggagct gcctgagatc cccaatggct ggaagagccc 2450
 atgcagcct gagctagtgc acggcacctg ggtcacttac cagtgtctacc 2500
 ctggctacca ggtagtggga tccagtgtcc tcatgtgcca gtgggacctc 2550
 acttgagtg aggacctgcc ctcatgccag agggtgactt cctgccacga 2600
 tcctggagat gtggagcaca gccgacgcct catatccagc cccaagtttc 2650
 ccgtgggggc caccgtgcaa tatatctgtg accagggttt tgtgctgatg 2700
 ggcagctcca tctcacctg ccctgatcgc caggctggca gcccgaagtg 2750
 gagtgaccgg gcccctaaat gtctcctgga acagctcaag ccctgccatg 2800
 gtctcagtgc cctgagaat ggtgcccga gtctgagaa gcagctacac 2850
 ccagcagggg ccaccatcca cttctcgtgt gcccctggct atgtgctgaa 2900
 gggccaggcc agcatcaagt gtgtgcctgg gcacccctcg cattggagtg 2950
 acccccacc catctgtagg gctgcctctc tggatggttc tacaacagtc 3000
 gcagcctgga tggttgccaa ggcacctgct gcctccagca cctggatgc 3050
 tgcccacatt gcagctgcca tcttcttgcc actggtggcg atggtgttgt 3100

tggtaggagg tgtatacttc tacttctcca ggctccaggg aaaaagctcc 3150
 ctgcagctgc cccgcccccg cccccgcccc tacaaccgca ttaccataga 3200
 gtcagcgttt gacaatccaa cttacgagac tggatctctt tcctttgcag 3250
 gagacgagag aatatgaagt ctccatctag gtgggggcag tctaggggaag 3300
 tcaactcaga cttgcaccac agtccagcag caaggctcct tgcttcctgc 3350
 tgtccctcca cctcctgtat ataccaccta ggaggagatg ccaccaagcc 3400
 ctcaagaagt tgtgcccttc cccgcctgcg atgcccacca tggcctatTT 3450
 tcttggtgtc attgcccact tggggccctt cattggggcc atgtcagggg 3500
 gcatctacct gtgggaagaa catagctgga gcacaagcat caacagccgg 3550
 catectgagc ctccatcatgc cctggaccag cctggaacac actagcagag 3600
 caggagtacc tttctccaca tgaccaccat cccgcccctgg catggcaacc 3650
 tgcagcagga ttaacttgac catggtggga actgcaccag ggtactcctc 3700
 acagcgccat caccaatggc caaaaactcct ctcaacgggtg acctctgggt 3750
 agfcttgga tgccaacatc agcctcttgg gaggtctcta gttctctaaa 3800
 gttctggaca gttctgcctc ctgccctgtc ccagtggagg cagtaattct 3850
 aggagatcct aaggggttca gggggaccct acccccacct cagggttgggc 3900
 ttccctgggc actcatgctc cacaccaaag caggacacgc cattttccac 3950
 tgaccaccct ataccctgag gaaagggaga ctttcctccg atgtttatTT 4000
 agctgttgca aacatcttca ccctaatagt ccctcctcca attccagcca 4050
 cttgtcaggc tctcctcttg accactgtgt tatgggataa ggggaggggg 4100
 tgggcatatt ctggagagga gcagagggtcc aaggacccag gaatttggca 4150
 tggaacaggt ggtaggagag ccccagggag acgcccagga gctggctgaa 4200
 agccactttg tacatgtaat gtattatatg ggggtctgggc tccagccaga 4250
 gaacaatctt ttatttctgt tgtttcctta ttaaaatggt gtttttggaa 4300
 aaaaaa 4306'

<210> 75

<211> 7420

<212> DNA

<213> Homo sapien

<220>

<221> Unsure

<222> 3356, 3743, 3962, 3966, 3968, 3976, 3988

<223> Unknown base

<400> 75

gctgagcctg agccccgaccc gggg'gcgctc ccgccaggca ccatggtgca 50
gaagtcgcgc aacggcggcg tatacccccg cccgagcggg gagaagaagc 100
tgaaggtggg cttcgtgggg ctggaccccc gcgcgcccga ctccaccccg 150
gacgggggcg tgctgatcgc cggctccgag gcccccaagc gcggcagcat 200
cctcagcaaa cctcgcgcgg gcggcgcggg cgccgggaag ccccccaagc 250
gcaacgcctt ctaccgcaag ctgcagaatt tcctctacaa cgtgctggag 300
cggccgcgcg gctgggcggt catctaccac gcctacgtgt tcctcctggt 350
tttctcctgc ctgctgctgt ctgtgttttc caccatcaag gagtatgaga 400
agagctcgga gggggccctc tacatcctgg aaatcgtgac tatcgtggtg 450
tttggcggtg agtacttcgt gcggatctgg gccgcaggct gctgctgccg 500
gtaccgtggc tggagggggc ggctcaagtt tgcccggaaa ccgttctgtg 550
tgattgacat catggtgctc atcgctcca ttgcggtgct ggccgccggc 600
tcccagggca acgtctttgc cacatctgcg ctccggagcc tgcgcttcct 650
gcagattctg cggatgatcc gcatggaccg gcggggaggc acctggaagc 700
tgctgggctc tgtggtctat gcccacagca aggagctggt cactgcctgg 750
tacatcggtt tcctttgtct catcctggcc tcgttcctgg tgtacttggc 800
agagaagggg gagaacgacc actttgacac ctacgcggat gcactctggt 850
ggggcctgat cacgctgacc accattggct acggggacaa gtacccccag 900
acctggaacg gcaggctcct tgcggcaacc ttcacctca tcggtgtctc 950
cttcttcgcg ctgcctgcag gcatcttggg gtctgggttt gccctgaagg 1000
ttcaggagca gcacaggcag aagcactttg agaagaggcg gaaccgcgca 1050
gcaggcctga tccagtcggc ctggagattc tacgccacca acctctcgcg 1100
cacagacctg cactccacgt ggcagtacta cgagcgaacg gtcaccgtgc 1150
ccatgtacag acttatcccc ccgctgaacc agctggagct gctgaggaac 1200
ctcaagagta aatctggact cgctttcagg aaggaccccc cgccggagcc 1250
gtctccaagc cagaaggtca gtttgaaaga tcgtgtcttc tccagcccc 1300
gaggcgtggc tgccaagggg aaggggtccc cgcaggccca gactgtgagg 1350
cggtcacca gcgccacca gagcctcgag gacagcccca gcaaggtgcc 1400

caagagctgg agcttcgggg accgcagccg ggcacgccag gctttccgca 1450
 tcaaggggtgc cgcgtcacgg cagaactcag aagaagcaag cctccccgga 1500
 gaggacattg tggatgacaa gagctgcccc tgcgagtttg tgaccgagga 1550
 cctgaccccc ggcctcaaag tcagcatcag agccgtgtgt gtcattgcgg 1600
 tcttgggtgc caagcggaag ttcaaggaga gcctgcggcc ctacgacgtg 1650
 atggacgtca tcgagcagta ctacgccggc cacctggaca tgctgtcccc 1700
 aattaagagc ctgcagtcca gaggggacca gatcgtgggg cggggcccag 1750
 cgatcacgga caaggaccgc accaagggcc cggccgaggc ggagctgccc 1800
 gaggacccca gcatgatggg acggctcggg aaggtggaga agcaggtctt 1850
 gtccatggag aagaagctgg acttctcgtt gaatatctac atgcagcggg 1900
 tgggcatccc cccgacagag accgaggcct actttggggc caaagagccg 1950
 gagccggcgc cgcctacca cagcccgaa gacagccggg agcatgtcga 2000
 caggcacggc tgcattgtca agatcgtgag ctccagcagc tccacggggc 2050
 agaagaactt ctccggcccc cggccgcgc cccctgtcca gtgtccgccc 2100
 tccacctcct ggcagccaca gagccacccg cgcaggggc accggcacctc 2150
 ccccgctggg gaccacggct ccttgggtgc catcccgccg ccgcctgccc 2200
 acgagcggtc gctgtccgcc tacggcgggg gcaaccgcgc cagcatggag 2250
 ttctgcggc aggaggacac cccgggctgc agggcccccg aggggacct 2300
 ggggacagc gacacgtcca tctccatccc gtccgtggac cagcaggagc 2350
 tggagcgttc cttcagcggc ttcagcatct ccagtccta ggagaacctg 2400
 gatgctctca acagctgcta cgcggccgtg ggccttctg ccaaagtcag 2450
 gccctacatt gcggagggag agtcagacac cgactccgac ctctgtacct 2500
 cgtgcggggc cccgccacgc tcggccaccg gcgaggggtc ctttgggtgac 2550
 gtgggctggg cggggcccag gaagtgaggc ggcgctgggc cagtggacct 2600
 gcccgcggcc ctctcagca cgggtgcctc gaggttttga ggcgggaacc 2650
 ctctggggcc cttttcttac agtaactgag tgtggcggga agggggggcc 2700
 ctggaggggc ccatgtgggc tgaaggatgg gggctcctgg cagtgcacct 2750
 ttacaaaagt tattttccaa cagggcactc ccaggccctg tcgccattga 2800
 ggtgcctccg ctgggctgtc tctcaccccc tccctgtgct ggagcctgtc 2850

ccaaaaaggt gccaaactggg aggcctcgga agccactgtc caggctccca 2900
 ctgcctgtct gctctgttcc caaaggcagc gtgtgtggcc tcgggcccctg 2950
 cggtagcatg aagcatccct tctggtgtgg gcacgctac gtgttttggg 3000
 ggcagcgttt caggcggtg cccttgcctgt ctcccttggg ctggctcgag 3050
 cctgggggtcc atgtcccttt gccgtcccgt catggggcag ggaatccata 3100
 gcggggccca caggcagggg tatgagtgcg tcccacccaa cgcagcacca 3150
 gccccggcca ccgtcccccg tgtcccagc tccgtctcag ctacctggac 3200
 tccaggaccc tggagaaggg agacctggca gtggaggagg gctgtgctgt 3250
 gtgtccccct gcaggtgtga ccccgccctgc tctttccctcc cccgccaggt 3300
 gtggccccgc ctgctctttc ctccccacc agtatggccc cacctgctct 3350
 ttctncccc cccaagggtg ggccccacct gttctttcct cccctgccga 3400
 ggtgtgaccc cacctgctct ttctccctc ccagtatggc cccacctgct 3450
 ctttccctcc ccgaggtgag gccccgcctg ctctttccct ccatggggagc 3500
 cgctgaggcg tgcgcacctg ggcacaggtt ggggctctgc aggatgagga 3550
 agacaggcca atcccttccc tcccagaagc tggccgcccc gcaggaggga 3600
 ctgaggccag actcatgtcc agcaaggaaac gtgtggtgtg tcccctggga 3650
 agtctctggg ccctgggaag aggggaagggtg cacgtcctgg gatggttgcg 3700
 gggccctgtt ttgggagaca aaggggtaga gggctctgtc tngccccccc 3750
 cagactctag cccgagcagt gcagccacct actgccccac ctgagagaag 3800
 tgcagcggga aggaggctgg aggtggtgcg gcgctgcctc ggggtgtctgc 3850
 gtgaatgagc gtggccaagg accagtgcc cctcatggca aagagctccc 3900
 gcagtgtttg ttagagtgc catcctacgt gccactggc acacacacgt 3950
 gctcacatac angtcngngt acaggngtac acatgcangc ttgcacacat 4000
 gcacacagac cacatagcac acatgtgcac tgaccacacc tgtatagacc 4050
 atgcacagta cacatacgtg catacacatg cctgcataca ggcatacaca 4100
 tgcacgttta catgtacacg tgcacagatc acacacatgc acacacgtgt 4150
 agtcacaca cagtatacac atacacaagt gcacagacca cacacagcac 4200
 taacacatgc acacacaaag tgcataggcc acacagcaca tgcacacagg 4250
 tgcacagacc acacagcaca cacaagtgc cagagcacac tgcacacatg 4300

cacacacaca cgcgatgcatg cacactcctc gcacttccag ccttggagcc 4350
cttctgtctc tggctcttct ctttgaccct gctgagtgtg agctgcctgg 4400
ggaggggcta caaggagtaa ttgtggcttt aggggtcgtg gtgatgctgg 4450
aatgtcaagc gccgtcgtgg ggtatccgac tgtccgggct cctgggtccgc 4500
agtggcagag cgccaggcag agccaatcag ggtctcgtgc tgcccttccc 4550
ccccacagcc tggcagccat ccagaggagg ggctctacca gatgccaagg 4600
tgccccggtg tctgtatggg tgtccggttg ggtcctgtgt ttggtctgcc 4650
ctggaggtgg ctgggccctc ctgggatggg tggctcagcc tcgaatcca 4700
ggccccagcc caggcagggtg ctgctgcctg ttgtggtttc ctggcccagc 4750
ttctccttct ccctctgcat aaaatcacag tccgtgagtc ttccagctgc 4800
caccacggct gggacacgct gggggagggc tcctcccatg cctcctgcac 4850
acagccgtct gagcagggca ggtgccaaca cccccaccg gagacacgct 4900
gccccacagc gatgccccta ccttttgggg ggctcgtct caagcccccc 4950
cttggaggct gaaatcacc caggcactgt gagggcttct ccagggggac 5000
accttttgag ctgtgggtct gatcaccca agtcccgac acggaggaga 5050
ggcacagcca gggcgtgtgg tttaatgttt gccccttcgg ggctggaggt 5100
ctcagtgttt ctagattcca gacctgctg ccagagagac ctgctgccgg 5150
agagaagggg aggaggactc cagctgggct cggccccca cagtcaggga 5200
ccccataaa ggacaccccc ttctctctag aaagagctgg gctctcagct 5250
atttctagtt gcttcccaga agccgaggag cagaaggagc tgtgagagct 5300
ttgcagaaac gcccttgctc ccgccctcct gagctatgaa tgccgtacag 5350
agcagaggct ggggcattgg caagatcaca ggttgatgct gcacagcccc 5400
attgacacaa acctcaaag cagacgtgag agggacgggt cacaagctt 5450
ggacctgccg tggaggggtgc ccggcagacg tggcgtgaga gggacggctc 5500
acgaggcttg gacctgctgt ggaggggtgcc cagcagacgt ggtgtgagag 5550
gaacggctca cgagacttgg acctggtgga ggggtgccag cagacgtggt 5600
gtgagagggg cggctcacag ggcttgacc ggagagagat ggctcatgag 5650
acttgacct gccgtggagg gtgcccagca gacgtggtat gagagggatg 5700
gctcacgagg cttggacctg gtggaggggt cccggcagac gtgtgagagg 5750

gacggttcac aaggcttga cctgccatgg agggtgccca gcagacgtgg 5800
tgtgagaggg acagctcacg aggcttggac ctgccgtgga gggtgcccag 5850
cagggggctg agctctgagg ggtgggtgct cagtgcacgg gtgccccag 5900
tgtcctctga tctgtccgg tgcctcccc aacccccaca cccatgcaga 5950
actcccaggt cacatgcacg tatgtccagg gcatgggggt ggcgtgaaga 6000
ggcctgggtca gggcctttag gggctgcagg acggaatggc cacctgggga 6050
gcctgtgtgg ctgtgccggg cagccatcct gcattcccac ccagcgcgca 6100
gtctccacct cggccccagc aaagcgctaa gcagccggag agacagccag 6150
ggcggttcc tgaaggatgt gggatgggtg actccgggggt cgagggaata 6200
cgcaggttcc tgtcctccgg gagacctaga gaagctgcac acccaggagc 6250
tttccatgac ccgggagcat gagtgaatgg ggggttccag ttgtctgaac 6300
tttgtgtct tgtaagggtg ggggctgacg gccgacctg ggaggaggtg 6350
acaccgcagg gggaggttgt gggcaacggt ggaggaggag agacgggagg 6400
ggaccatttg ggatggaggg gcctcttcag agttttaaaa ggcgtttgtg 6450
gggtggagtt gagtgtgctc tgggcttga cacttgccgt ggtgccccctg 6500
gctggccgag gagactggct ctggccaggg ccccgctctg agaggtcctc 6550
agcgtctgac tctcgccag gcgccagcaa ggaggggccc gtccccgggg 6600
ctaccaggca ggcacgtgca catcgccatc gccacacgcc aactccgcct 6650
gggttttaca aagtcgttg cttaatgcat gtggacagga actccctgag 6700
gtcgccccat gccccctggc tgtgccaggt acggacgccc tggaccctgc 6750
gaacaggtgg ggcgggagag gggcccaagg gacgggctcc agagacacgc 6800
gcagggcagg aggggtctca cggaggggtc tcgcactgag gcgcccagag 6850
ctggtgggtc cgctggacgc catccctctg cccgggatcc acacggccca 6900
cgtgtgcccg ccatgcccgc gccccacgcc attgcagtct tccatcctct 6950
ggcgtgacg gtggtgcag cttccccatt tgcgcggtg cctctggctg 7000
tctgcacttt tgttcattgt ccaaagaaca ttccataatg ccttcagtac 7050
cgacgtacac ttctgacct tttgtatgtg tccttgtgcc gtagtgacca 7100
ggcctttttt tgggtggatgt gttacccgc acacttcaat ctcaactttg 7150
tgcaccgtcc attttctagg gatagacgcc cagggaatga actctagttt 7200

tctaacagat tagctgagat attaaccttac tcacacggac aggttgatgc 7250
cagagccgta agaatgcgcc agtgcggggtt tgcggggggac ttcgggtgtg 7300
gggtcctgcg gccgcgatgg ccgtggaagg ttctggggat ccctgctgcc 7350
acggggacga gttcggacgc caggtggacc tgtgcactca gtaaaacgca 7400
gtgattcaaa aaaaaaaaaa 7420

<210> 76
<211> 1433
<212> DNA
<213> Homo sapien

<400> 76
ggcacgaggc aagtccggat gaagaattaa gagaaaaaaaa gtgaatatgg 50
tttttgctca cagaatggat aacagcaagc cacatttgat tattcctaca 100
cttctgggtgc ccctccaaaa ccgcagctgc actgaaacag ccacacctct 150
gccaagccaa tacctgatgg aattaagtga ggagcacagt tggatgagca 200
accaaacaga ctttcaactat gtgctgaaac ccgggggaagt ggccacagcc 250
agcatcttct ttgggattct gtggttgttt tctatcttcg gcaattccct 300
ggtttgtttg gtcattccata ggagtaggag gactcagtct accaccaact 350
actttgtggt ctccatggca tgtgctgacc ttctcatcag cgttgccagc 400
acgcctttcg tctgctcca gttcaccact ggaagggtgga cgctgggtag 450
tgcaacgtgc aaggttggtc gatattttca atatctcact ccaggtgtcc 500
agatctacgt tctcctctcc atctgcatag accggttcta caccatcgtc 550
tatactctga gcttcaagggt gtccagagaa aaagccaaga aaatgattgc 600
ggcatcgtgg atctttgatg caggctttgt gaccctgtg ctctttttct 650
atggctccaa ctgggacagt cattgtaact atttctccc ctctcttgg 700
gaaggcactg cctacactgt catccacttc ttggtgggct ttgtgattcc 750
atctgtcttc ataattttat ttaccacaaa ggtcataaaa tatatttgga 800
gaataggcac agatggccga acggtgagga ggacaatgaa cattgtccct 850
cggacaaaag tgaaaactat caagatgttc ctcatcttaa atctgttggt 900
tttgcctctc tggctgcctt ttcatgtagc tcagctatgg ccccccatg 950
aacaagacta taagaaaagt tcccttgttt tcacagctat cacatggata 1000
tcctttagtt cttcagctc taaacctact ctgtattcaa ttataaatgc 1050

caatthttcgg agaggggatga aagagacttt ttgcatgtcc tctatgaaat 1100
 gttaccgaag caatgcctat actattacaa caagttcaag gatggccaaa 1150
 aaaaactacg ttggcatttc agaaatccct tccatggcca aaactattac 1200
 caaagactcg atctatgact catttgacag agaagccaag gaaaaaaaagc 1250
 ttgcttggcc cattaactca aatccaccaa atacttttgt ctaagttctc 1300
 attctttcaa ttgttatgca ccagagatta aaaagcttta actataaaaa 1350
 cagaagctat ttacatattht gttttcactc aactttccaa gggaaatgtt 1400
 ttatthttgta aaatgcattc atttgthttac tgt 1433

<210> 77
 <211> 3561
 <212> DNA
 <213> Homo sapien

<400> 77
 gccatggccg tccggcccg cctgtggcca gcgctcctgg gcatagtcct 50
 cgcgcgttgg ctccgcggct cgggtgcca gcagagtgc accgtggcca 100
 acccagtgc tggtgccaac ccggacctgc tccccactt cctgggtggag 150
 cccgaggatg tgtacatcgt caagaacaag ccagtgtgc ttgtgtgcaa 200
 ggccgtgccc gccacgcaga tctttctcaa gtgcaacggg gagtgggtgc 250
 gccaggtgga ccacgtgatc gagcgcagca cagacgggag cagtgggctg 300
 cccaccatgg aggtccgcat taatgtctca aggcagcagg tcgagaaggt 350
 gttcgggctg gaggaatact ggtgccagtg cgtggcatgg agctcctcgg 400
 gcaccaccaa gagtccagaag gcctacatcc gcatagccta tttgcgcaag 450
 aacttcgagc aggagccgct ggccaaggag gtgtccctgg agcagggcat 500
 cgtgtgtccc tgccgtccac cggagggcat cctccagcc gaggtggagt 550
 ggctccggaa cgaggacctg gtggacctgt cctggacct caatgtatac 600
 atcacgcggg agcacagcct ggtggtgcca caggcccgcc ttgctgacac 650
 ggccaactac acctgcgtgg ccaagaacat cgtggcacgt cgcgcagcgc 700
 cctccgtgtc tgtcatcgtc tacgtggacg gcagctggag cccgtggagc 750
 aagtggtcgg cctgtgggct ggactgcacc cactggcgga gccgtgagtg 800
 ctctgacca gccccccga acggagggga ggagtgccag ggcactgacc 850
 tggacacccg caactgtacc agtgacctct gtgtacacac tgcttctggc 900

cctgaggacg tggccctcta tgtgggcctc atcgccgtgg ccgtctgcct 950
ggctctgtg ctgcttgctc tcatcctcgt ttattgccgg aagaaggagg 1000
ggctggactc agatgtggct gactcgtcca ttctcacctc aggttccag 1050
cccgtcagca tcaagcccag caaagcagac aacccccatc tgctcaccat 1100
ccagccggac ctacgacca ccaccaccac ctaccagggc agtctctgtc 1150
cccggcagga tgggcccagc cccaagttcc agctcaccaa tgggcacctg 1200
ctcagcccc tgggtggcgg ccgccacaca ctgcaccaca gctctccac 1250
ctctgaggcc gaggagtctg tctccgcct ctcccccag aactacttcc 1300
gctccctgcc ccgaggcacc agcaacatga cctatgggac cttcaacttc 1350
ctcgggggccc ggctgatgat ccctaataca ggaatcagcc tctcatccc 1400
cccagatgcc ataccccag ggaagatcta tgagatctac ctacgctgc 1450
acaagccgga agacgtgagg ttgcccctag ctggctgtca gacctgctg 1500
agtcccatcg ttagctgtgg accccctggc gtctgtctca cccggccagt 1550
catctggct atggaccact gtggggagcc cagccctgac agctggagcc 1600
tgcgcctcaa aaagcagtcg tgcgagggca gctgggagga tgtgtgcac 1650
ctgggcgagg aggcgcctc ccacctctac tactgccagc tggaggccag 1700
tgctgtctac gtcttcaccg agcagctggg ccgctttgcc ctggtgggag 1750
aggeectcag cgtggctgcc gccaaagccc tcaagctgct tctgtttgcg 1800
ccggtggcct gcacctcct cgagtacaac atccgggtct actgctgca 1850
tgacaccac gatgcactca aggaggtggg gcagctggag aagcagctgg 1900
ggggacagct gatccaggag ccacgggtcc tgcacttcaa ggacagttac 1950
cacaacctgc gcctatccat ccacgatgtg ccagctccc tgtggaagag 2000
taagctcctt gtcagctacc aggagatccc cttttatcac atctggaatg 2050
gcacgcagcg gtacttgca tgcaccttca cctggagcg tgtcagcccc 2100
agcactagtg acctggcctg caagctgtgg gtgtggcagg tggaggcgga 2150
cgggcagagc ttcagcatca acttcaacat caccaaggac acaaggtttg 2200
ctgagctgct ggctctggag agtgaagcgg gggcccagc cctggtgggc 2250
cccagtgct tcaagatccc ctctctcatt cggcagaaga taatttccag 2300
cctggacca ccctgtaggc ggggtgccga ctggcggact ctggcccaga 2350

aactccacct ggacagccat ctcagcttct ttgcctccaa gcccagcccc 2400
acagccatga tcctcaacct gtgggaggcg cggcacttcc ccaacggcaa 2450
cctcagccag ctgggtgcag cagtggctgg actgggccag ccagacgctg 2500
gcctcttcac agtgtcggag gctgagtgtt gaggccggcc agggccgaca 2550
cctacactct caccagcttt ggcacccacc aaggacaggc agaagccgga 2600
cagggggccct tccccacacc ggggagagct gctcggacag gccccctccc 2650
ggccgaagct gtcccttaat gctggctcct cagaccctgc ccgaactccc 2700
acctctccat ggctgccta gccaggctgg cactgccact cacactcggc 2750
cccagggccc aggagggaca gtgcctggag cctgggccag gcccagccca 2800
tctgtgtgtg tgtatgtgcg tgtgatgcta cctctcctcc cgtccctctc 2850
cagggggccc gcatacacac ggccatgcac gcacacactg ggctggggcc 2900
agggccccag agctcctgcc tgagctggac cttatgcaaa catttctgtg 2950
cctgctgggt aggggcacgt ctgaggggcc ctgctccaag cctgcaggac 3000
cgagggccac agccggacag ggggtagccc ctggattcag gcacacgacc 3050
accacacgag cacgtgccac gcatgcctcg tgtgtcctc tcacacacac 3100
ccccctcccg ggtcacgcag acacccccca accacacaca tctcatgccg 3150
tacacctgag gctgtcacg tctcacgccc agtggtgggt cacatttgcc 3200
tctcacatgc tgccctctcc acccaccag ggacacccca cggtcctcc 3250
ctgcccctgc cctcccccga gccttgaggt gccctgcccg gcggggcctg 3300
tgaatatgca atgggagtc caggctgtac agtggtgagt gtgtgtgtgg 3350
cgtggcgtgc ccgtccccag ggctggctgg tgccccacgc ggggcctgtc 3400
atgtgaagct cgtgtcctga ctttgtctta agtgcattca cgcacttact 3450
cttggcctta tgtacacagc cttgcccggc cgccggggca cataggggtt 3500
ttatcgggcg tgaatgtaaa taaattatat atatatttg ctaaaaaaaaa 3550
aaaaaaaaa a 3561

<210> 78

<211> 4153

<212> DNA

<213> Homo sapien

<400> 78

taaggttaatt cgtatgcaag aagctacacg taattaaatg tgcaggatga 50

aaagatggca caggcactgt tggtagcccc aggacctgaa agcttccgcc 100
 tttttactag agaattctctt gctgctatcg aaaaacgtgc tgcagaagag 150
 aaagccaaga agcccaaaaa ggaacaagat aatgatgatg agaacaacc 200
 aaagccaaat agtgacttgg aagctggaaa gaaccttcca tttatttatg 250
 gagacattcc tccagagatg gtgtcagagc ccctggagga cctggatccc 300
 tactatatca ataagaaaac ttttatagta atgaataaag gaaaggcaat 350
 tttccgattc agtgccacct ctgccttgta tattttaact ccactaaacc 400
 ctgttaggaa aattgctatc aagattttgg tacattcttt attcagcatg 450
 cttatcatgt gcaactatctt gaccaactgt gtatttatga ccttgagcaa 500
 ccctcctgac tggacaaaga atgtagagta cacattcact ggaatctata 550
 cctttgagtc acttataaaa atccttggtta gagggttttg cttagaagat 600
 tttacgtttc ttcgtgatcc atggaactgg ctggatttca gtgtcattgt 650
 gatggcgat gtaacagaat ttgtaagcct aggcaatgtt tcagcccttc 700
 gaactttcag agtcttgaga gctctgaaaa ctatttctgt aattccaggt 750
 ttaaagacca ttgtgggggc cctgatccag tcggtaaaga agctttctga 800
 tgtgatgatc ctgactgtgt tctgtctgag cgtgtttgct ctcatggggc 850
 tgcagctgtt catgggcaat ctgaggaata aatgtttgca gtggcccca 900
 agcgattctg cttttgaaac caacaccact tcctacttta atggcacaat 950
 ggattcaaat gggacatttg ttaatgtaac aatgagcaca ttttaactgga 1000
 aggataacat tggagatgac agtcactttt atgttttgga tgggcaaaaa 1050
 gaccctttac tctgtggaaa tgggtcagat gcaggccagt gtccagaagg 1100
 atacatctgt gtgaaggctg gtcgaaaccc caactatggc tacacaagct 1150
 ttgacacctt tagctgggct ttctgtctc tatttctgact catgactcaa 1200
 gactactggg aaaatcttta ccagttgaca ttacgtgctg ctgggaaaac 1250
 atacacgata tttttgtcc tggtcatttt cttgggctca ttttatttgg 1300
 tgaatttgat cctggctgtg gtggccatgg cctatgagga gcagaatcag 1350
 gccaccttg aagaagcaga acaaaaagag gccgaatttc agcagatgct 1400
 cgaacagctt aaaaagcaac aggaagaagc tcaggcagtt gcggcagcat 1450
 cagctgcttc aagagatttc agtggaatag gtgggttagg agagctgttg 1500

gaaagttctt cagaagcatc aaagttgagt tccaaaagtg ctaaagaatg 1550
 gaggaaccga aggaagaaaa gaagacagag agagcacctt gaaggaaaca 1600
 acaaaggaga gagagacagc tttcccaaat ccgaatctga agacagcgtc 1650
 aaaagaagca gcttcctttt ctccatggat ggaaacagac tgaccagtga 1700
 caaaaaattc tgctcccctc atcagtctct cttgagtatc cgtggctccc 1750
 tgttttcccc aagacgcaat agcaaaacaa gcattttcag tttcagaggt 1800
 cgggc aaagg atgttgatc tgaaaatgac tttgctgatg atgaacacag 1850
 cacatttgaa gacagcgaaa cgaggagaga ctactgttt gagccgcaca 1900
 gacatggaga gcgacgcaac agtaacggca ccaccacaga aacggagggtc 1950
 agaaagagaa ggttaagttc ttaccagatt tcaatggaga tgctggagga 2000
 ttcttctgga aggcaagag ccgtgagcat agccagcatt ctgaccaaca 2050
 caatggaaga acttgaagaa tctagacaga aatgtccgcc atgctgggtat 2100
 agatttgcca atgtgttctt gatctgggac tgctgtgatg catgggttaa 2150
 agtaaacat cttgtgaatt taattgttat ggatccattt gttgatcttg 2200
 ccatcactat ttgcattgtc ttaaataccc tctttatggc catggagcac 2250
 taccocatga ctgagcaatt cagtagtgtg ttgactgtag gaaacctggg 2300
 ctttactggg attttcacag cagaaatggg tctcaagatc attgccatgg 2350
 atccttatta ctatttccaa gaaggctgga atatctttga tgggaattatt 2400
 gtcagcctca gtttaatgga gcttgggtctg tcaaatgtgg agggattgtc 2450
 tgtactgcca tcattcagac tgcttagagt tttcaagttg gcaaaatcct 2500
 ggccacact aaatatgcta attaagatca ttggcaattc tgtgggggct 2550
 ctaggaaacc tcaccttggg gttggccatc atcgtcttca tttttgctgt 2600
 ggtcggcatg cagctctttg gtaagagcta caaagaatgt gtctgcaaga 2650
 tcaatgatga ctgtacgtc ccacggtggc acatgaacga cttcttccac 2700
 tccttctga ttgtgttccg cgtgctgtgt ggagagtgga tagagaccat 2750
 gtgggactgt atggagggtc ctggccaaac catgtgcctt attgttttca 2800
 tgttggcat ggtcattgga aaccttgtgg ttctgaacct ctttctggcc 2850
 ttattgttga gttcatttag ctgagacaac cttgtgcta ctgatgatga 2900
 caatgaaatg aataatctgc agattgcagt aggaagaatg caaaaggga 2950

ttgattatgt gaaaaataag atgcgggagt gtttccaaaa agcctttttt 3000
 agaaagccaa aagttataga aatccatgaa ggcaataaga tagacagctg 3050
 catgtccaat aatactggaa ttgaaataag caaagcgctt aattatctta 3100
 gagatgggaa tggaaccacc agtgggtgtag gtactggaag cagtgttgaa 3150
 aaatacgtaa tcgatgaaaa tgattatatg tcattcataa acaaccccag 3200
 cctcaccgtc acagtgccaa ttgctgttgg agagtctgac tttgaaaact 3250
 taaatactga agagttcagc agtgagtcag aactagaaga aagcaaagag 3300
 aaattaaatg caaccagctc atctgaagga agcacagttg atgttggtct 3350
 accccgagaa ggtgaacaag ctgaaactga acccgaagaa gaccttaaac 3400
 cggaagcttg ttttactgaa ggatgtatta aaaagtttcc attctgtcaa 3450
 gtaagtacag aagaaggcaa agggaagatc tgggtggaatc ttcgaaaaac 3500
 ctgctacagt attgttgagc acaactgggt tgagactttc attgtgttca 3550
 tgatccttct cagtagtggg gcattggcct ttgaagatat atacattgaa 3600
 cagcgaaaga ctatcaaac catgctagaa tatgctgaca aagtctttac 3650
 ctatatattc attctggaaa tgcttctcaa atgggttgct tatggatttc 3700
 aaacatattt cactaatgcc tgggtgccggc tagatttctt gatcggtgat 3750
 gtttcttttg ttagcctggg agccaatgct cttggctact cagaactcgg 3800
 tgccatcaaa tcattacgga cattaagagc tttaagacct ctaagagcct 3850
 tatcccggtt tgaaggcatg aggggtggtt tgaatgctct tgttgagca 3900
 attccctcta tcatgaatgt gctgttggtc tgtctcatct tctgggtgat 3950
 ctttagcatc atgggtgtga atttgtttgc tggcaagttc taccactgtg 4000
 ttaacatgac aacgggtaac atgtttgaca ttagtgatgt taacaatttg 4050
 agtgactgtc aggtctttgg caagcaagct cgggtggaaaa acgtgaaagt 4100
 aaactttgat aatgttggcg ctggctatct tgcactgctt caagtggtaa 4150
 gtg 4153

<210> 79

<211> 8976

<212> DNA

<213> Homo sapien

<400> 79

agcgaagcgg aggcataagc agagaggatt ctggaaaggt ctctttggtt 50

tcttatccac agagaaagaa agaaaaaaaaa ttgtaactaa tttgtaaacc 100
tctgtggtca aaaaaaaaaa aaaaaaaaaa gctgaacagc tgccagagga 150
agacacgtta taccctaacc atcttggatg ctgggctttg ttatgctgta 200
attcataagg ctctgtttta tcagagatta tggagcaaga aaactgaagc 250
caagccacat caaggtttga cagggatgag atacctgtca aggattcata 300
gtagagtggc ttactgggaa aggagcaaag aatctcttct agggatattg 350
taagaataaa tgagataatt cacagaaggg acctggagct tttccggaaa 400
aagggtgctgt gactatctaa ggtaattcgt atgcaagaag ctacacgtaa 450
ttaaatgtgc aggatgaaaa gatggcacag gcactgttgg tacccccagg 500
acctgaaagc ttccgccttt ttactagaga atctcttgct gctatcgaaa 550
aacgtgctgc agaagagaaa gccaaagaag ccaaaaagga acaagataat 600
gatgatgaga acaaaccaaa gccaaatagt gacttggaag ctggaaagaa 650
ccttccattt atttatggag acattcctcc agagatggtg tcagagcccc 700
tggaggacct ggatccctac tatatcaata agaaaacttt tatagtaatg 750
aataaaggaa aggcaatttt ccgattcagt gccacctctg ccttgtatat 800
tttaactcca ctaaaccctg ttaggaaaat tgctatcaag attttggtac 850
attctttatt cagcatgctt atcatgtgca ctattttgac caactgtgta 900
tttatgacct tgagcaaccc tcctgactgg acaaagaatg tagagtacac 950
attcactgga atctatacct ttgagtcaat tataaaaaatc ttggcaagag 1000
ggttttgctt agaagatttt acgtttcttc gtgatccatg gaactggctg 1050
gatttcagtg tcattgtgat ggcatatgtg acagagtttg tggacctggg 1100
caatgtctca gcgttgagaa catteagagt tctccgagca ctgaaaacaa 1150
tttcagtcac tcaggttta aagaccattg tgggggacct gatccagtcg 1200
gtaaagaagc tttctgatgt gatgatcctg actgtgttct gtctgagcgt 1250
gtttgctctc attgggctgc agctgttcat gggcaatctg aggaataaat 1300
gtttgcagtg gcccacaagc gattctgctt ttgaaaccaa caccacttcc 1350
tactttaatg gcacaatgga ttcaaatggg acatttgta atgtaacaat 1400
gagcacattt aactggaagg attacattgg agatgacagt cacttttatg 1450
ttttggatgg gcaaaaagac cctttactct gtggaaatgg ctcagatgca 1500

ggccagtgtc cagaaggata catctgtgtg aaggctggtc gaaaccccaa 1550
ctatggctac acaagctttg acacctttag ctgggctttc ctgtctctat 1600
ttcgactcat gactcaagac tattgggaaa atctttacca gttgacatta 1650
cgtgctgctg ggaaaacata catgatattt tttgtcctgg tcattttctt 1700
gggctcattt tatttgggtga atttgatcct ggctgtggtg gccatggcct 1750
atgaggagca gaatcaggcc accttggaag aagcagaaca aaaagaggcc 1800
gaatttcagc agatgctcga acagcttaaa aagcaacagg aagaagctca 1850
ggcagttgcg gcagcatcag ctgcttcaag agatttcagt ggagtaggtg 1900
ggttaggaga gctgttgga agttcttcag aagcatcaaa gttgagttcc 1950
aaaggtgcta aagaatggag gaaccggagg aagaaaagaa gacagagaga 2000
gcaccttgaa ggaaacaaca aaggagagag agacagcttt cccaaatccg 2050
aatctgaaga cagcgtcaaa agaagcagct tccttttctc catggatgga 2100
aacagactga ccagtgacaa aaaattctgc tccctcctc agtctctctt 2150
gagtatccgt ggctccctgt tttccccaag acgcaatagc aaaacaagca 2200
ttttcagttt cagaggtcgg gcaaaggatg ttggatctga aaatgacttt 2250
gctgatgatg aacacagcac atttgaagac agcgaaagca ggagagactc 2300
actgtttgtg ccgcacagac atggagagcg acgcaacagt aacggcacca 2350
ccactgaaac ggaagtcaga aagagaaggt taagctctta ccagatttca 2400
atggagatgc tggaggatct ctctggaagg caaagagccg tgagcatagc 2450
cagcattctg accaacacaa tggaagaact tgaagaatct agacagaaat 2500
gtccgccatg ctggtataga tttgccaatg tgttcttgat ctgggactgc 2550
tgtgatgcat ggttaaaagt aaaacatctt gtgaatttaa ttgttatgga 2600
tccatttggt gatcttgcca tcaactattg cattgtctta aataccctct 2650
ttatggccat ggagcactac cccatgactg agcaattcag tagtgtgttg 2700
actgtaggaa acctggtctt tactgggatt ttcacagcag aaatggttct 2750
caagatcatt gccatggatc cttattacta tttccaagaa ggctggaata 2800
tctttgatgg aattattgtc agcctcagtt taatggagct tggctctgtca 2850
aatgtggagg gattgtctgt actgcgatca ttcagactgc ttagagtttt 2900
caagttggca aaatcctggc ccacactaaa tatgctaatt aagatcattg 2950

gcaattctgt gggggctcta ggaaacctca ccttggtgtt ggccatcatc 3000
gtcttcattt ttgctgtggt cggcatgcag ctcttttgta agagctacaa 3050
agaatgtgtc tgcaagatca atgatgactg tacgctccca cgggtggcaca 3100
tgaacgactt cttccactcc ttcctgattg tgttccgcgt gctgtgtgga 3150
gagtggatag agaccatgtg ggactgtatg gaggtcgctg gccaaaccat 3200
gtgccttatt gttttcatgt tggatcatgt cattggaaac cttgtggttc 3250
tgaacctctt tctggcctta ttattgagtt catttagctc agacaacctt 3300
gctgctactg atgatgacaa tgaaatgaat aatctgcaga ttgcagtagg 3350
aagaatgcaa aaggggaattg attatgtgaa aaataagatg cgggagtggt 3400
tccaaaaagc cttttttaga aagccaaaag ttatagaaat ccatgaaggc 3450
aataagatag acagctgcat gtccaataat actggaattg aaataagcaa 3500
agagcttaat tatcttagag atgggaatgg aaccaccagt ggtgtaggta 3550
ctggaagcag tgttgaaaaa tacgtaatcg atgaaaatga ttatatgtca 3600
ttcataaaca accccagcct caccgtcaca gtgccaattg ctgttgagga 3650
gtctgacttt gaaaacttaa atactgaaga gttcagcagt gagtcagaac 3700
tagaagaaag caaagagaaa ttaaagcaa ccagctcatc tgaaggaagc 3750
acagttgatg ttgttctacc ccgagaaggt gaacaagctg aaactgaacc 3800
cgaagaagac tttaaaccgg aagcttggtt tactgaaggg tgtattaaaa 3850
agtttccatt ctgtcaagta agtacagaag aaggcaaagg gaagatctgg 3900
tggaatcttc gaaaaacctg ctacagtatt gttgagcaca actgggttga 3950
gactttcatt gtgttcatga tccttctcag tagtggtgca ttggcctttg 4000
aagatatata cattgaacag cgaaagacta tcaaaaccat gctagaatat 4050
gctgacaaag tctttacctt tatattcatt ctggaaatgc ttctcaaatg 4100
ggttgcttat ggatttcaaa catatttcac taatgcctgg tgctggctag 4150
atttcttgat cgttgatgtt tctttgggta gcctggtagc caatgctctt 4200
ggctactcag aactcgggtg catcaaatac ttacggacat taagagcttt 4250
aagacctcta agagccttat cccgggttga aggcattgagg gtgggtgtga 4300
atgctcttgt tggagcaatt ccctctatca tgaatgtgct gttggtctgt 4350
ctcatcttct gggtgatctt tagcatcatg ggtgtgaatt tgtttgctgg 4400

caagttctac cactgtgtta acatgacaac gggtaacatg tttgacatta 4450
 gtgatgttaa caatttgagt gactgtcagg ctcttggaac gcaagctcgg 4500
 tggaaaaacg tgaaagtaaa ctttgataat gttggcgctg gctatcttgc 4550
 actgcttcaa gtggccacat ttaaaggctg gatggatatt atgtatgcag 4600
 ctgttgattc acgagatgtt aaacttcagc ctgtatatga agaaaatctg 4650
 tacatgtatt tatactttgt catctttatc atctttgggt cattcttcac 4700
 tctgaatcta ttcattgggtg tcatcataga taacttcaac cagcagaaaa 4750
 agaagtttgg aggtcaagac atctttatga cagaggaaca gaaaaaatat 4800
 tacaatgcaa tgaagaaact tggatccaag aaacctcaga aaccataacc 4850
 tcgcccagca aacaaattcc aaggaatggt ctttgatttt gtaaccagac 4900
 aagtctttga tatcagcatc atgatcctca tctgcctcaa catggtcacc 4950
 atgatggtgg aaacggatga ccagggcaaa tacatgaccc tagttttgtc 5000
 ccggatcaac ctagtgttca ttgttctgtt cactggagaa tttgtgctga 5050
 agctcgtttc cctcagacac tactacttca ctataggctg gaacatcttt 5100
 gactttgtgg tggtgattct ctccattgta ggtatgtttc tggctgagat 5150
 gatagaaaag tattctgtgt cccctacctt gttccgagt atccgtcttg 5200
 ccaggattgg ccgaatccta cgtctgatca aaggagcaaa ggggatccgc 5250
 acgctgctct ttgctttgat gatgtccctt cctgcgttgt ttaacatcgg 5300
 cctcctgctc ttcttggtca tgtttatcta tgccatcttt gggatgtcca 5350
 actttgcta tgttaaaaag gaagctggaa ttgatgacat gttcaacttt 5400
 gagacctttg gcaacagcat gatctgcttg ttccaaatta caacctctgc 5450
 tggctgggat ggattgctag cacctattct taatagtga ccacccgact 5500
 gtgaccctga cacaattcac cctggcagct cagttaaggg agaccgtggg 5550
 gacctatctg ttgggatttt cttttttgtc agttacatca tcatatcctt 5600
 cctggttgtg gtgaacatgt acatcgcggt catcctggag aacttcagt 5650
 ttgctactga agaaagtga gagccccga gtgaggatga ctttgagatg 5700
 ttctatgagg tttgggaaaa gtttgatccc gatgcgaccc agtttataga 5750
 gttctctaaa ctctctgatt ttgcagctgc cctggatcct cctcttctca 5800
 tagcaaaacc caacaaagtc cagcttattg ccatggatct gcccatggtc 5850

agtgggtgacc ggatccactg tcttgatatt ttattingcct ttacaaagcg 5900
 tgttttgtgt gagagtggag agatggatgc ccttcgaata cagatggaag 5950
 acaggtttat ggcacaaac cctccaaag tctcttatga gcctattaca 6000
 accactttga aacgtaaaca agaggaggtg tctgccgcta tcattcagcg 6050
 taatttcaga tggtatcttt taaagcaaag gttaaaaaat atatcaagta 6100
 actataacaa agaggcaatt aaagggagga ttgacttacc tataaaacaa 6150
 gacatgatta ttgacaaact aaatgggaac tccactccag aaaaaacaga 6200
 tgggagttcc tctaccacct ctctccttc ctatgatagt gtaacaaaac 6250
 cagacaagga aaagtttgag aaagacaaac cagaaaaaga aagcaaagga 6300
 aaagaggtca gagaaaatca aaagtaaaaa gaaacaaaga attatctttg 6350
 tgatcaattg tttacagcct atgaaggtaa agtatatgtg tcaactggac 6400
 ttcaagagga ggtccatgcc aaactgactg ttttaacaaa tactcatagt 6450
 cagtgcctat acaagacagt gaagtgcct ctctgtcact gcaactctgt 6500
 gaagcagggt atcaacgttg acaagaggtt gctgttttta ttaccagctg 6550
 aactgctga ggagaaacc aatggctacc tagactatag ggatagttgt 6600
 gcaaagtga cattgttaact acaccaaaca ctttagtac agtccttgca 6650
 tccattctat ttttaacttc catatctgcc atatttttac aaaatttggt 6700
 ctagtgcatt tccatggtcc ccaattcata gtttattcat aatgctatgt 6750
 cactatTTTT gtaaatgagg tttacgttga agaaacagta tacaagaacc 6800
 ctgtctctca aatgatcaga caaagggtgt ttgccagaga gataaaattt 6850
 ttgtcaaaa ccagaaaaag aattgtaatg gctacagttt cagttacttc 6900
 cattttctag atggctttta ttttgaaagt attttagtct gttatgtttg 6950
 tttctatctg aacagttatg tgctgtaaa gtctcctcta atatttaaag 7000
 gattatTTTT atgcaaagta ttctgtttca gcaagtgcaa attttattct 7050
 aagtttcaga gctctatatt taatttaggt caaatgcttt ccaaaaagta 7100
 atctaataaa tccattctag aaaaatatat ctaaagtatt gctttagaat 7150
 agttgttcca ctttctgctg cagtattgct ttgccatctt ctgctctcag 7200
 caaagctgat agtctatgtc aattaaatac cctatgttat gtaaatagtt 7250
 attttatcct gtgggtgcatg tttgggcAAA tatatatata gcctgataaa 7300

caacttctat taaatcaa atgtaccaca gtgtatgtgt cttttgcaag 7350
cttccaacag ggatgtatcc tgtatcattc attaaacata gtttaaaggc 7400
tatcactaat gcatgttaat attgcctatg ctgctctatt ttactcaatc 7450
cattcttcac aagtcttggg taaagaatgt cacatattgg tgatagaatg 7500
aattcaacct gctctgtcca ttatgtcaag cagaataatt tgaagctatt 7550
tacaacacc ttacttttg cactttta tcaacatgag tatcatatgg 7600
tatctctctg gatttcaagg aaacacactg gatactgcct actgacaaaa 7650
cctattcttc atattttgct aaaaatatgt ctaaaacttg tttaaatata 7700
aataatgtaa aaatataatc aactttatgt gtcagcattt tgtacataag 7750
aaaattatgt tcagggtgat gacatcacia tttattttac tttatgcttt 7800
tgcttttgat ttttaatcac aattccaaac ttttgaatcc ataagatttt 7850
tcaatggata atttcctaaa ataaaagtta gataatgggt tttatggatt 7900
tctttgttat aatatatttt ctaccattcc aataggagat acattggtca 7950
aacactcaaa cctagatcat tttctacca ctatgggtgc ctcaatataa 8000
ccttttattc atagatgttt ttttttattc aacttttgta gtatttacgt 8050
atgcagacta gtcttatttt ttttaattcct gctgcactaa agctattaca 8100
aatataacat ggactttggt ctttttagcc atgaacaaag tggcaaagtt 8150
gtgcaattac ctaacatgat ataaattttt gttttttgca caaaccaaaa 8200
gtttaatgtt aattcttttt acaaaaactat ttactgtagt gtattgaaga 8250
actgcatgca ggaattgct attgctaaaa agaattggtga gctacgtcat 8300
tattgagcca aaagaataaa tttcattttt tattgcattt cacttattgg 8350
gctctggggg tttttgtttt tgttttttgc tgttggcagt ttaaaatata 8400
tataattaat aaaacctgtg cttgatctga catttgtata cataaaagtt 8450
tacatgaatt ttacaacaaa ctagtgcatt attcaccaag cagtactaca 8500
gaacaaaggc aaattaaaag cagctttgtg aacttttatg tgtgcaaagg 8550
atcaagttca catgttccaa ctttcagggt tgataataat agtagtaacc 8600
acctacaata gctttcaatt tcaattaact cccttggtta taagcatcta 8650
aactcatctt ctttcaatat aattgatgct atctcctaact tacttggtgg 8700
ctaataaatg ttacattctt tgttacttaa atgcattata taaactccta 8750

tgtatacata aggtattaat gatatagtta ttgagaattt atattaactt 8800
 ttttttcaag aacccttgga tttatgtgag gtcaaaacca aactcttatt 8850
 ctcagtggaa aactccagtt gtaatgcata tttttaaaga caatttggat 8900
 ctaaatatgt atttcataat tctcccataa taaattatat aaggtggaaa 8950
 aaaaaaaaaa aaaaaaaaaa aaaaaa 8976

<210> 80
 <211> 1672
 <212> DNA
 <213> Homo sapien

<400> 80
 aaaaaaatta aaaaaaaaaa aaaaaacaga aaaaaaaaca tagtacatgc 50
 caagatatta ttatgacaat tacaaatata aataaattat gatctttgac 100
 ctcagcatat ttattaacta aaagggaaga taaaacaggc acataactat 150
 aacaggggca ccagtcacatg gcgccgcagc cgctcaggcg cctctcgggc 200
 tgectgcggc ctccgctcgc cttctgctgc tagcgacgtc ggtgcttctg 250
 ctcttcgcct tctctctgcc cgggagccgc gcgtccaacc agcccccggg 300
 tgggtggcggc ggcacgggcg gggactgtcc cggcggcaaa ggcaagagca 350
 tcaactgctc agaattaaat gtgagggagt ctgacgtaag agtttgtgat 400
 gagtcatcat gtaaatatgg aggagtctgt aaagaagatg gagatggttt 450
 gaaatgtgca tgccaatttc agtgccatac aaattatatt cctgtctgtg 500
 gatcaaattg ggacacttat caaatgaat gctttctcag aagggtgct 550
 tgtaagcacc agaaagagat aacagtaata gcaagaggac catgctactc 600
 tgataatgga tctggatctg gagaaggaga agaggaaggg tcaggggcag 650
 aagttcacag aaaacactcc aagtgtggac cctgcaaata taaagctgag 700
 tgtgatgaag atgcagaaaa tgttgggtgt gtatgtaata tagattgcag 750
 tggatacagt tttaatcctg tgtgtgcttc tgatgggagt tcctataaca 800
 atccctgttt tgttcgagaa gcatcttgta taaagcaaga acaaattgat 850
 ataaggcatc ttggtcattg cacagatata gatgacacta gtttgttggg 900
 aaagaaagat gatggactac aatatcgacc agatgtgaaa gatgctagtg 950
 atcaaagaga agatgtttat attggaaacc acatgccttg ccctgaaaac 1000
 ctcaatggtt actgcatcca tggaaaatgt gaattcatct atctactcag 1050

aagggtcttct tgtagatgtg aatctggcta cactggacag cactgtgaaa 1100
agacagactt tagtattctc tatgtagtgc caagtaggca aaagctcact 1150
catgtttctta ttgcagcaat tattggagct gtacagattg ccatcatagt 1200
agcaattgta atgtgcataa caagaaaatg ccccaaaaac aatagaggac 1250
gtcgacagaa gcaaaaccta ggtcatttta cttcagatac gtcattccaga 1300
atggtttaaa ctgatgactt ttatatgtac actgaccatg tgtatgtaca 1350
tttattatgt ctttttttaa agaattggaaa tattttatttc agaaggcctt 1400
atTTTTggac atTTTTatagt gtagtactgt tggctcgata tttgaatatt 1450
cagctacgac agTTTTggac tgttttagtag tctttgtttt atgtTTTTaa 1500
atacagaat tgcttcacaa atttgtacca catggtaatt ctaagacttg 1550
ttctttaccc atggaatgta atatttttgc aaagatggac tacttcacaa 1600
atggttataa agtcatatcc acttcttcca caatgaccac agcaaatgac 1650
ccaagcatga actaaagaag ag 1672

<210> 81
<211> 2091
<212> DNA
<213> Homo sapien

<400> 81
cgccagcatg ctgccggagc agctctactt cctgcagagc ccccccggagg 50
aggagccccga ataccacccc gacgcctcag cccaagaatt aaatgtgagg 100
gagtctgacg taagagtttg tgatgagtca tcatgtaaat atggaggagt 150
ctgtaaagaa gatggagatg gtttgaaatg tgcattgcaa tttcagtgcc 200
atacaaatta tattcctgtc tgtggatcaa atggggacac ttatcaaaat 250
gaatgctttc tcagaagggc tgcttgtaag caccagaaag agataacagt 300
aatagcaaga ggaccatgct actctgataa tggatctgga tctggagaag 350
gagaagagga agggctcagg gcagaagttc acagaaaaca ctccaagtgt 400
ggaccctgca aatataaagc tgagtgtgat gaagatgcag aaaatgttgg 450
gtgtgtatgt aatatagatt gcagtggata cagttttaat cctgtgtgtg 500
cttctgatgg gagttcctat aacaatccct gttttgttcg agaagcatct 550
tgtataaagc aagaacaaat tgatataagg catcttggtc attgcacaga 600
tacagatgac actagtttgt tgggaaagaa agatgatgga ctacaatatc 650

gaccagatgt gaaagatgct agtgatcaaa gagaagatgt ttatattgga 700
aaccacatgc cttgccctga aaacctcaat ggttactgca tccatggaaa 750
atgtgaattc atctattcta ctcagaaggc ttcttgtaga tgtgaatctg 800
gctacactgg acagcactgt gaaaagacag acttttagtat tctctatgta 850
gtgccaagta ggcaaaagct cactcatgtt cttattgcag caattattgg 900
agctgtacag attgccatca tagtagcaat tgtaatgtgc ataacaagaa 950
aatgccccaa aaacaataga ggacgtcgac agaagcaaaa cctagggtcat 1000
tttacttcag atacgtcatc cagaatgggt taaactgatg acttttatat 1050
gtacactgac catgtgatgt acatttatta tgtctttttt taaagaatgg 1100
aaatatttat ttcagaggcc ttatttttgg acatttttag thtagtactg 1150
ttggctcgta tttagaatat tcagctacga cagttttgga ctgttttagta 1200
gtctttgttt tatgttttta aatacagaaa ttgctttcac aaatttgtac 1250
cacatggtaa ttctaagact tgttctttac ccatggaatg taatattttt 1300
gcaaagatgg actacttcac aaatgggtat aaagtcatat ccacttcttc 1350
cacaatgacc acagcaaatg accaagcatg aactaaagggt aaagatgttt 1400
acagattact tttcttaca aaaaaatcta gaagacactg tgtttaaata 1450
gatatttaaa tgtttttgag atttagtaac tgatttttta gacactgcct 1500
atcgcatgaa ctgtaaagct gtgtgtatta ggtgtaaaat atttataaga 1550
tatatggact ggggaatttg attattcctc cctttgaaaa aatagtccta 1600
ataatttgaa caaatatgtt agtaatgatg gaacagatca atgaaaagta 1650
gatatagata ttgtgaaaat aggctgttta acaaacagat tggaataaag 1700
cctattctac cagttaaact actttaatac acattcattt ttaaagaaaa 1750
tgtttgtttt aacataaata aacaaatcgt atcagtgttt gtgaataaaa 1800
tacaaaaatg attgttaatg attggtgctc ttaaagttag cttaaaattt 1850
atccaagacg tatatccaaa tttgtcctgt agtaatagat taatattcat 1900
agattgttgg tgtttaaaaga tctgaagtgt gagtagaatg tattcagctg 1950
tttaacatgt agtttagata ttcaaaagta tgcattgtag atttaaaaga 2000
tatgttaaaa attattaatt ttaatatattt gtttgaaaaa gcatgttata 2050
atataatgtt ttcactataa agaaaaaaaa aaaaaaaaaa a 2091

<210> 82
 <211> 554
 <212> PRT
 <213> Homo sapien

<400> 82
 Met Pro Thr Val Asp Asp Ile Leu Glu Gln Val Gly Glu Ser Gly
 1 5 10 15
 Trp Phe Gln Lys Gln Ala Phe Leu Ile Leu Cys Leu Leu Ser Ala
 20 25 30
 Ala Phe Ala Pro Ile Cys Val Gly Ile Val Phe Leu Gly Phe Thr
 35 40 45
 Pro Asp His His Cys Gln Ser Pro Gly Val Ala Glu Leu Ser Gln
 50 55 60
 Arg Cys Gly Trp Ser Pro Ala Glu Glu Leu Asn Tyr Thr Val Pro
 65 70 75
 Gly Leu Gly Pro Ala Gly Glu Ala Phe Leu Gly Gln Cys Arg Arg
 80 85 90
 Tyr Glu Val Asp Trp Asn Gln Ser Ala Leu Ser Cys Val Asp Pro
 95 100 105
 Leu Ala Ser Leu Ala Thr Asn Arg Ser His Leu Pro Leu Gly Pro
 110 115 120
 Cys Gln Asp Gly Trp Val Tyr Asp Thr Pro Gly Ser Ser Ile Val
 125 130 135
 Thr Glu Phe Asn Leu Val Cys Ala Asp Ser Trp Lys Leu Asp Leu
 140 145 150
 Phe Gln Ser Cys Leu Asn Ala Gly Phe Leu Phe Gly Ser Leu Gly
 155 160 165
 Val Gly Tyr Phe Ala Asp Arg Phe Gly Arg Lys Leu Cys Leu Leu
 170 175 180
 Gly Thr Val Leu Val Asn Ala Val Ser Gly Val Leu Met Ala Phe
 185 190 195
 Ser Pro Asn Tyr Met Ser Met Leu Leu Phe Arg Leu Leu Gln Gly
 200 205 210
 Leu Val Ser Lys Gly Asn Trp Met Ala Gly Tyr Thr Leu Ile Thr
 215 220 225
 Glu Phe Val Gly Ser Gly Ser Arg Arg Thr Val Ala Ile Met Tyr
 230 235 240
 Gln Met Ala Phe Thr Val Gly Leu Val Ala Leu Thr Gly Leu Ala
 245 250 255
 Tyr Ala Leu Pro His Trp Arg Trp Leu Gln Leu Ala Val Ser Leu

260	265	270
Pro Thr Phe Leu Phe Leu Leu Tyr Tyr Trp Cys Val Pro Glu Ser		
275	280	285
Pro Arg Trp Leu Leu Ser Gln Lys Arg Asn Thr Glu Ala Ile Lys		
290	295	300
Ile Met Asp His Ile Ala Gln Lys Asn Gly Lys Leu Pro Pro Ala		
305	310	315
Asp Leu Lys Met Leu Ser Leu Glu Glu Asp Val Thr Glu Lys Leu		
320	325	330
Ser Pro Ser Phe Ala Asp Leu Phe Arg Thr Pro Arg Leu Arg Lys		
335	340	345
Arg Thr Phe Ile Leu Met Tyr Leu Trp Phe Thr Asp Ser Val Leu		
350	355	360
Tyr Gln Gly Leu Ile Leu His Met Gly Ala Thr Ser Gly Asn Leu		
365	370	375
Tyr Leu Asp Phe Leu Tyr Ser Ala Leu Val Glu Ile Pro Gly Ala		
380	385	390
Phe Ile Ala Leu Ile Thr Ile Asp Arg Val Gly Arg Ile Tyr Pro		
395	400	405
Met Ala Met Ser Asn Leu Leu Ala Gly Ala Ala Cys Leu Val Met		
410	415	420
Ile Phe Ile Ser Pro Asp Leu His Trp Leu Asn Ile Ile Ile Met		
425	430	435
Cys Val Gly Arg Met Gly Ile Thr Ile Ala Ile Gln Met Ile Cys		
440	445	450
Leu Val Asn Ala Glu Leu Tyr Pro Thr Phe Val Arg Asn Leu Gly		
455	460	465
Val Met Val Cys Ser Ser Leu Cys Asp Ile Gly Gly Ile Ile Thr		
470	475	480
Pro Phe Ile Val Phe Arg Leu Arg Glu Val Trp Gln Ala Leu Pro		
485	490	495
Leu Ile Leu Phe Ala Val Leu Gly Leu Leu Ala Ala Gly Val Thr		
500	505	510
Leu Leu Leu Pro Glu Thr Lys Gly Val Ala Leu Pro Glu Thr Met		
515	520	525
Lys Asp Ala Glu Asn Leu Gly Arg Lys Ala Lys Pro Lys Glu Asn		
530	535	540
Thr Ile Tyr Leu Lys Val Gln Thr Ser Glu Pro Ser Gly Thr		
545	550	

<210> 83
 <211> 527
 <212> PRT
 <213> Homo sapien

<400> 83
 Met Arg Ser Asp Lys Ser Ala Leu Val Phe Leu Leu Leu Gln Leu
 1 5 10 15
 Phe Cys Val Gly Cys Gly Phe Cys Gly Lys Val Leu Val Trp Pro
 20 25 30
 Cys Asp Met Ser His Trp Leu Asn Val Lys Val Ile Leu Glu Glu
 35 40 45
 Leu Ile Val Arg Gly His Glu Val Thr Val Leu Thr His Ser Lys
 50 55 60
 Pro Ser Leu Ile Asp Tyr Arg Lys Pro Ser Ala Leu Lys Phe Glu
 65 70 75
 Val Val His Met Pro Gln Asp Arg Thr Glu Glu Asn Glu Ile Phe
 80 85 90
 Val Asp Leu Ala Leu Asn Val Leu Pro Gly Leu Ser Thr Trp Gln
 95 100 105
 Ser Val Ile Lys Leu Asn Asp Phe Phe Val Glu Ile Arg Gly Thr
 110 115 120
 Leu Lys Met Met Cys Glu Ser Phe Ile Tyr Asn Gln Thr Leu Met
 125 130 135
 Lys Lys Leu Gln Glu Thr Asn Tyr Asp Val Met Leu Ile Asp Pro
 140 145 150
 Val Ile Pro Cys Gly Asp Leu Met Ala Glu Leu Leu Ala Val Pro
 155 160 165
 Phe Val Leu Thr Leu Arg Ile Ser Val Gly Gly Asn Met Glu Arg
 170 175 180
 Ser Cys Gly Lys Leu Pro Ala Pro Leu Ser Tyr Val Pro Val Pro
 185 190 195
 Met Thr Gly Leu Thr Asp Arg Met Thr Phe Leu Glu Arg Val Lys
 200 205 210
 Asn Ser Met Leu Ser Val Leu Phe His Phe Trp Ile Gln Asp Tyr
 215 220 225
 Asp Tyr His Phe Trp Glu Glu Phe Tyr Ser Lys Ala Leu Gly Arg
 230 235 240
 Pro Thr Thr Leu Cys Glu Thr Val Gly Lys Ala Glu Ile Trp Leu
 245 250 255
 Ile Arg Thr Tyr Trp Asp Phe Glu Phe Pro Gln Pro Tyr Gln Pro

260	265	270
Asn Phe Glu Phe Val Gly Gly Leu His Cys Lys Pro Ala Lys Ala		
275	280	285
Leu Pro Lys Glu Met Glu Asn Phe Val Gln Ser Ser Gly Glu Asp		
290	295	300
Gly Ile Val Val Phe Ser Leu Gly Ser Leu Phe Gln Asn Val Thr		
305	310	315
Glu Glu Lys Ala Asn Ile Ile Ala Ser Ala Leu Ala Gln Ile Pro		
320	325	330
Gln Lys Val Leu Trp Arg Tyr Lys Gly Lys Lys Pro Ser Thr Leu		
335	340	345
Gly Ala Asn Thr Arg Leu Tyr Asp Trp Ile Pro Gln Asn Asp Leu		
350	355	360
Leu Gly His Pro Lys Thr Lys Ala Phe Ile Thr His Gly Gly Met		
365	370	375
Asn Gly Ile Tyr Glu Ala Ile Tyr His Gly Val Pro Met Val Gly		
380	385	390
Val Pro Ile Phe Gly Asp Gln Leu Asp Asn Ile Ala His Met Lys		
395	400	405
Ala Lys Gly Ala Ala Val Glu Ile Asn Phe Lys Thr Met Thr Ser		
410	415	420
Glu Asp Leu Leu Arg Ala Leu Arg Thr Val Ile Thr Asp Ser Ser		
425	430	435
Tyr Lys Glu Asn Ala Met Arg Leu Ser Arg Ile His His Asp Gln		
440	445	450
Pro Val Lys Pro Leu Asp Arg Ala Val Phe Trp Ile Glu Phe Val		
455	460	465
Met Arg His Lys Gly Ala Lys His Leu Arg Ser Ala Ala His Asp		
470	475	480
Leu Thr Trp Phe Gln His Tyr Ser Ile Asp Val Ile Gly Phe Leu		
485	490	495
Leu Thr Cys Val Ala Thr Ala Ile Phe Leu Phe Thr Lys Cys Phe		
500	505	510
Leu Phe Ser Cys Gln Lys Phe Asn Lys Thr Arg Lys Ile Glu Lys		
515	520	525

Arg Glu

<210> 84
<211> 469

<212> PRT

<213> Homo sapien

<400> 84

Met	Gln	Ala	Asp	Ala	Arg	Ala	Phe	Phe	Ala	Gln	Asp	Gly	Val	Gln	
1.				5					10					15	
Ser	Leu	Leu	Thr	Gln	Lys	Trp	Trp	Gly	Asp	Met	Ala	Ser	Thr	Thr	
				20					25					30	
Pro	Ile	Trp	Ala	Leu	Val	Leu	Ala	Phe	Phe	Cys	Pro	Pro	Leu	Ile	
				35					40					45	
Tyr	Thr	Arg	Leu	Ile	Thr	Phe	Arg	Lys	Ser	Glu	Glu	Glu	Pro	Thr	
				50					55					60	
Arg	Glu	Glu	Leu	Glu	Phe	Asp	Met	Asp	Ser	Val	Ile	Asn	Gly	Glu	
				65					70					75	
Gly	Pro	Val	Gly	Thr	Ala	Asp	Pro	Ala	Glu	Lys	Thr	Pro	Leu	Gly	
				80					85					90	
Val	Pro	Arg	Gln	Ser	Gly	Arg	Pro	Gly	Cys	Cys	Gly	Gly	Arg	Cys	
				95					100					105	
Gly	Gly	Arg	Arg	Cys	Leu	Arg	Arg	Trp	Phe	His	Phe	Trp	Gly	Ala	
				110					115					120	
Pro	Val	Thr	Ile	Phe	Met	Gly	Asn	Val	Val	Ser	Tyr	Leu	Leu	Phe	
				125					130					135	
Leu	Leu	Leu	Phe	Ser	Arg	Val	Leu	Leu	Val	Asp	Phe	Gln	Pro	Ala	
				140					145					150	
Pro	Pro	Gly	Ser	Leu	Glu	Leu	Leu	Leu	Tyr	Phe	Trp	Ala	Phe	Thr	
				155					160					165	
Leu	Leu	Cys	Glu	Glu	Leu	Arg	Gln	Gly	Leu	Ser	Gly	Gly	Gly	Gly	
				170					175					180	
Ser	Leu	Ala	Ser	Gly	Gly	Pro	Gly	Pro	Gly	His	Ala	Ser	Leu	Ser	
				185					190					195	
Gln	Arg	Leu	Arg	Leu	Tyr	Leu	Ala	Asp	Ser	Trp	Asn	Gln	Cys	Asp	
				200					205					210	
Leu	Val	Ala	Leu	Thr	Cys	Phe	Leu	Leu	Gly	Val	Gly	Cys	Arg	Leu	
				215					220					225	
Thr	Pro	Gly	Leu	Tyr	His	Leu	Gly	Arg	Thr	Val	Leu	Cys	Ile	Asp	
				230					235					240	
Phe	Met	Val	Phe	Thr	Val	Arg	Leu	Leu	His	Ile	Phe	Thr	Val	Asn	
				245					250					255	
Lys	Gln	Leu	Gly	Pro	Lys	Ile	Val	Ile	Val	Ser	Lys	Met	Met	Lys	
				260					265					270	

Asp	Val	Phe	Phe	Phe	Leu	Phe	Phe	Leu	Gly	Val	Trp	Leu	Val	Ala	275	280	285
Tyr	Gly	Val	Ala	Thr	Glu	Gly	Leu	Leu	Arg	Pro	Arg	Asp	Ser	Asp	290	295	300
Phe	Pro	Ser	Ile	Leu	Arg	Arg	Val	Phe	Tyr	Arg	Pro	Tyr	Leu	Gln	305	310	315
Ile	Phe	Gly	Gln	Ile	Pro	Gln	Glu	Asp	Met	Asp	Val	Ala	Leu	Met	320	325	330
Glu	His	Ser	Asn	Cys	Ser	Ser	Glu	Pro	Gly	Phe	Trp	Ala	His	Pro	335	340	345
Pro	Gly	Ala	Gln	Ala	Gly	Thr	Cys	Val	Ser	Gln	Tyr	Ala	Asn	Trp	350	355	360
Leu	Val	Val	Leu	Leu	Leu	Val	Ile	Phe	Leu	Leu	Val	Ala	Asn	Ile	365	370	375
Leu	Leu	Val	Asn	Leu	Leu	Ile	Ala	Met	Phe	Ser	Tyr	Thr	Phe	Gly	380	385	390
Lys	Val	Gln	Gly	Asn	Ser	Asp	Leu	Tyr	Trp	Lys	Ala	Gln	Val	Thr	395	400	405
Ala	Ser	Ser	Gly	Asn	Ser	Thr	Leu	Gly	Pro	Arg	Trp	Pro	Arg	Pro	410	415	420
Leu	Ser	Ser	Ser	Pro	Thr	Cys	Ala	Ser	Cys	Ser	Gly	Asn	Cys	Ala	425	430	435
Gly	Asp	Pro	Gly	Ala	Pro	Ser	Arg	Pro	Pro	Arg	Pro	Ser	Ser	Ile	440	445	450
Ser	Gly	Phe	Thr	Phe	Leu	Arg	Lys	Pro	Ser	Gly	Ser	Ala	Asn	Val	455	460	465

Gly Ile Gly Ala

<210> 85

<211> 320

<212> PRT

<213> Homo sapien

<400> 85

Met	Thr	Leu	Trp	Asn	Gly	Val	Leu	Pro	Phe	Tyr	Pro	Gln	Pro	Arg	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

His	Ala	Ala	Gly	Phe	Ser	Val	Pro	Leu	Leu	Ile	Val	Ile	Leu	Val	20	25	30
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	----

Phe	Leu	Ala	Leu	Ala	Ala	Ser	Phe	Leu	Leu	Ile	Leu	Pro	Gly	Ile	35	40	45
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	----

Arg Gly His Ser Arg Trp Phe Trp Leu Val Arg Val Leu Leu Ser

50	55	60
Leu Phe Ile Gly Ala Glu Ile Val Ala Val His Phe Ser Ala Glu 65	70	75
Trp Phe Val Gly Thr Val Asn Thr Asn Thr Ser Tyr Lys Ala Phe 80	85	90
Ser Ala Ala Arg Val Thr Ala Arg Val Gly Leu Leu Val Gly Leu 95	100	105
Glu Gly Ile Asn Ile Thr Leu Thr Gly Thr Pro Val His Gln Leu 110	115	120
Asn Glu Thr Ile Asp Tyr Asn Glu Gln Phe Thr Trp Arg Leu Lys 125	130	135
Glu Asn Tyr Ala Ala Glu Tyr Ala Asn Ala Leu Glu Lys Gly Leu 140	145	150
Pro Asp Pro Val Leu Tyr Leu Ala Glu Lys Phe Thr Pro Ser Ser 155	160	165
Pro Cys Gly Leu Tyr His Gln Tyr His Leu Ala Gly His Tyr Ala 170	175	180
Ser Ala Thr Leu Trp Val Ala Phe Cys Phe Trp Leu Leu Ser Asn 185	190	195
Val Leu Leu Ser Thr Pro Ala Pro Leu Tyr Gly Gly Leu Ala Leu 200	205	210
Leu Thr Thr Gly Ala Phe Ala Leu Phe Gly Val Phe Ala Leu Ala 215	220	225
Ser Ile Ser Ser Val Pro Leu Cys Pro Leu Arg Leu Gly Ser Ser 230	235	240
Ala Leu Thr Thr Gln Tyr Gly Ala Ala Phe Trp Val Thr Leu Ala 245	250	255
Thr Gly Val Leu Cys Leu Phe Leu Gly Gly Ala Val Val Ser Leu 260	265	270
Gln Tyr Val Arg Pro Ser Ala Leu Arg Thr Leu Leu Asp Gln Ser 275	280	285
Ala Lys Asp Cys Ser Gln Glu Arg Gly Gly Ser Pro Leu Ile Leu 290	295	300
Gly Asp Pro Leu His Lys Gln Ala Ala Leu Pro Asp Leu Lys Cys 305	310	315
Ile Thr Thr Asn Leu 320		

<210> 86
<211> 801

<212> PRT

<213> Homo sapien

<400> 86

Met	Glu	Arg	Leu	Trp	Gly	Leu	Phe	Gln	Arg	Ala	Gln	Gln	Leu	Ser	
1				5					10					15	
Pro	Arg	Ser	Ser	Gln	Thr	Val	Tyr	Gln	Arg	Val	Glu	Gly	Pro	Arg	
				20					25					30	
Lys	Gly	His	Leu	Glu	Glu	Glu	Glu	Glu	Asp	Gly	Glu	Glu	Gly	Ala	
				35					40					45	
Glu	Thr	Leu	Ala	His	Phe	Cys	Pro	Met	Glu	Leu	Arg	Gly	Pro	Glu	
				50					55					60	
Pro	Leu	Gly	Ser	Arg	Pro	Arg	Gln	Pro	Asn	Leu	Ile	Pro	Trp	Ala	
				65					70					75	
Ala	Ala	Gly	Arg	Arg	Ala	Ala	Pro	Tyr	Leu	Val	Leu	Thr	Ala	Leu	
				80					85					90	
Leu	Ile	Phe	Thr	Gly	Ala	Phe	Leu	Leu	Gly	Tyr	Val	Ala	Phe	Arg	
				95					100					105	
Gly	Ser	Cys	Gln	Ala	Cys	Gly	Asp	Ser	Val	Leu	Val	Val	Ser	Glu	
				110					115					120	
Asp	Val	Asn	Tyr	Glu	Pro	Asp	Leu	Asp	Phe	His	Gln	Gly	Arg	Leu	
				125					130					135	
Tyr	Trp	Ser	Asp	Leu	Gln	Ala	Met	Phe	Leu	Gln	Phe	Leu	Gly	Glu	
				140					145					150	
Gly	Arg	Leu	Glu	Asp	Thr	Ile	Arg	Gln	Thr	Ser	Leu	Arg	Glu	Arg	
				155					160					165	
Val	Ala	Gly	Ser	Ala	Gly	Met	Ala	Ala	Leu	Thr	Gln	Asp	Ile	Arg	
				170					175					180	
Ala	Ala	Leu	Ser	Arg	Gln	Lys	Leu	Asp	His	Val	Trp	Thr	Asp	Thr	
				185					190					195	
His	Tyr	Val	Gly	Leu	Gln	Phe	Pro	Asp	Pro	Ala	His	Pro	Asn	Thr	
				200					205					210	
Leu	His	Trp	Val	Asp	Glu	Ala	Gly	Lys	Val	Gly	Glu	Gln	Leu	Pro	
				215					220					225	
Leu	Glu	Asp	Pro	Asp	Val	Tyr	Cys	Pro	Tyr	Ser	Ala	Ile	Gly	Asn	
				230					235					240	
Val	Thr	Gly	Glu	Leu	Val	Tyr	Ala	His	Tyr	Gly	Arg	Pro	Glu	Asp	
				245					250					255	
Leu	Gln	Asp	Leu	Arg	Ala	Arg	Gly	Val	Asp	Pro	Val	Gly	Arg	Leu	
				260					265					270	

Leu Leu Val Arg	Val Gly Val Ile Ser	Phe Ala Gln Lys Val Thr	275	280	285
Asn Ala Gln Asp	Phe Gly Ala Gln Gly	Val Leu Ile Tyr Pro Glu	290	295	300
Pro Ala Asp Phe	Ser Gln Asp Pro Pro	Lys Pro Ser Leu Ser Ser	305	310	315
Gln Gln Ala Val	Tyr Gly His Val His	Leu Gly Thr Gly Asp Pro	320	325	330
Tyr Thr Pro Gly	Phe Pro Ser Phe Asn	Gln Thr Gln Phe Pro Pro	335	340	345
Val Ala Ser Ser	Gly Leu Pro Ser Ile	Pro Ala Gln Pro Ile Ser	350	355	360
Ala Asp Ile Ala	Ser Arg Leu Leu Arg	Lys Leu Lys Gly Pro Val	365	370	375
Ala Pro Gln Glu	Trp Gln Gly Ser Leu	Leu Gly Ser Pro Tyr His	380	385	390
Leu Gly Pro Gly	Pro Arg Leu Arg Leu	Val Val Asn Asn His Arg	395	400	405
Thr Ser Thr Pro	Ile Asn Asn Ile Phe	Gly Cys Ile Glu Gly Arg	410	415	420
Ser Glu Pro Asp	His Tyr Val Val Ile	Gly Ala Gln Arg Asp Ala	425	430	435
Trp Gly Pro Gly	Ala Ala Lys Ser Ala	Val Gly Thr Ala Ile Leu	440	445	450
Leu Glu Leu Val	Arg Thr Phe Ser Ser	Met Val Ser Asn Gly Phe	455	460	465
Arg Pro Arg Arg	Ser Leu Leu Phe Ile	Ser Trp Asp Gly Gly Asp	470	475	480
Phe Gly Ser Val	Gly Ser Thr Glu Trp	Leu Glu Gly Tyr Leu Ser	485	490	495
Val Leu His Leu	Lys Ala Val Val Tyr	Val Ser Leu Asp Asn Ala	500	505	510
Val Leu Gly Asp	Asp Lys Phe His Ala	Lys Thr Ser Pro Leu Leu	515	520	525
Thr Ser Leu Ile	Glu Ser Val Leu Lys	Gln Val Asp Ser Pro Asn	530	535	540
His Ser Gly Gln	Thr Leu Tyr Glu Gln	Val Val Phe Thr Asn Pro	545	550	555
Ser Trp Asp Ala	Glu Val Ile Arg Pro	Leu Pro Met Asp Ser Ser			

560										565					570				
Ala	Tyr	Ser	Phe	Thr	Ala	Phe	Val	Gly	Val	Pro	Ala	Val	Glu	Phe					
				575					580					585					
Ser	Phe	Met	Glu	Asp	Asp	Gln	Ala	Tyr	Pro	Phe	Leu	His	Thr	Lys					
				590					595					600					
Glu	Asp	Thr	Tyr	Glu	Asn	Leu	His	Lys	Val	Leu	Gln	Gly	Arg	Leu					
				605					610					615					
Pro	Ala	Val	Ala	Gln	Ala	Val	Ala	Gln	Leu	Ala	Gly	Gln	Leu	Leu					
				620					625					630					
Ile	Arg	Leu	Ser	His	Asp	Arg	Leu	Leu	Pro	Leu	Asp	Phe	Gly	Arg					
				635					640					645					
Tyr	Gly	Asp	Val	Val	Leu	Arg	His	Ile	Gly	Asn	Leu	Asn	Glu	Phe					
				650					655					660					
Ser	Gly	Asp	Leu	Lys	Ala	Arg	Gly	Leu	Thr	Leu	Gln	Trp	Val	Tyr					
				665					670					675					
Ser	Ala	Arg	Gly	Asp	Tyr	Ile	Arg	Ala	Ala	Glu	Lys	Leu	Arg	Gln					
				680					685					690					
Glu	Ile	Tyr	Ser	Ser	Glu	Glu	Arg	Asp	Glu	Arg	Leu	Thr	Arg	Met					
				695					700					705					
Tyr	Asn	Val	Arg	Ile	Met	Arg	Val	Glu	Phe	Tyr	Phe	Leu	Ser	Gln					
				710					715					720					
Tyr	Val	Ser	Pro	Ala	Asp	Ser	Pro	Phe	Arg	His	Ile	Phe	Met	Gly					
				725					730					735					
Arg	Gly	Asp	His	Thr	Leu	Gly	Ala	Leu	Leu	Asp	His	Leu	Arg	Leu					
				740					745					750					
Leu	Arg	Ser	Asn	Ser	Ser	Gly	Thr	Pro	Gly	Ala	Thr	Ser	Ser	Thr					
				755					760					765					
Gly	Phe	Gln	Glu	Ser	Arg	Phe	Arg	Arg	Gln	Leu	Ala	Leu	Leu	Thr					
				770					775					780					
Trp	Thr	Leu	Gln	Gly	Ala	Ala	Asn	Ala	Leu	Ser	Gly	Asp	Val	Trp					
				785					790					795					
Asn	Ile	Asp	Asn	Asn	Phe														
				800															

<210> 87
 <211> 318
 <212> PRT
 <213> Homo sapien

<400> 87
 Met Val Glu Leu Met Phe Pro Leu Leu Leu Leu Leu Leu Pro Phe
 1 5 10 15

Leu	Leu	Tyr	Met	Ala	Ala	Pro	Gln	Ile	Arg	Lys	Met	Leu	Ser	Ser		20	25	30
Gly	Val	Cys	Thr	Ser	Thr	Val	Gln	Leu	Pro	Gly	Lys	Val	Val	Val		35	40	45
Val	Thr	Gly	Ala	Asn	Thr	Gly	Ile	Gly	Lys	Glu	Thr	Ala	Lys	Glu		50	55	60
Leu	Ala	Gln	Arg	Gly	Ala	Arg	Val	Tyr	Leu	Ala	Cys	Arg	Asp	Val		65	70	75
Glu	Lys	Gly	Glu	Leu	Val	Ala	Lys	Glu	Ile	Gln	Thr	Thr	Thr	Gly		80	85	90
Asn	Gln	Gln	Val	Leu	Val	Arg	Lys	Leu	Asp	Leu	Ser	Asp	Thr	Lys		95	100	105
Ser	Ile	Arg	Ala	Phe	Ala	Lys	Gly	Phe	Leu	Ala	Glu	Glu	Lys	His		110	115	120
Leu	His	Val	Leu	Ile	Asn	Asn	Ala	Gly	Val	Met	Met	Cys	Pro	Tyr		125	130	135
Ser	Lys	Thr	Ala	Asp	Gly	Phe	Glu	Met	His	Ile	Gly	Val	Asn	His		140	145	150
Leu	Gly	His	Phe	Leu	Leu	Thr	His	Leu	Leu	Leu	Glu	Lys	Leu	Lys		155	160	165
Glu	Ser	Ala	Pro	Ser	Arg	Ile	Val	Asn	Val	Ser	Ser	Leu	Ala	His		170	175	180
His	Leu	Gly	Arg	Ile	His	Phe	His	Asn	Leu	Gln	Gly	Glu	Lys	Phe		185	190	195
Tyr	Asn	Ala	Gly	Leu	Ala	Tyr	Cys	His	Ser	Lys	Leu	Ala	Asn	Ile		200	205	210
Leu	Phe	Thr	Gln	Glu	Leu	Ala	Arg	Arg	Leu	Lys	Gly	Ser	Gly	Val		215	220	225
Thr	Thr	Tyr	Ser	Val	His	Pro	Gly	Thr	Val	Gln	Ser	Glu	Leu	Val		230	235	240
Arg	His	Ser	Ser	Phe	Met	Arg	Trp	Met	Trp	Trp	Leu	Phe	Ser	Phe		245	250	255
Phe	Ile	Lys	Thr	Pro	Gln	Gln	Gly	Ala	Gln	Thr	Ser	Leu	His	Cys		260	265	270
Ala	Leu	Thr	Glu	Gly	Leu	Glu	Ile	Leu	Ser	Gly	Asn	His	Phe	Ser		275	280	285
Asp	Cys	His	Val	Ala	Trp	Val	Ser	Ala	Gln	Ala	Arg	Asn	Glu	Thr		290	295	300
Ile	Ala	Arg	Arg	Leu	Trp	Asp	Val	Ser	Cys	Asp	Leu	Leu	Gly	Leu				

305

310

315

Pro Ile Asp

<210> 88

<211> 131

<212> PRT

<213> Homo sapien

<400> 88

Met	Lys	Ile	Phe	Leu	Pro	Val	Leu	Leu	Ala	Ala	Leu	Leu	Gly	Val
1				5					10					15

Glu	Arg	Ala	Ser	Ser	Leu	Met	Cys	Phe	Ser	Cys	Leu	Asn	Gln	Lys
				20					25					30

Ser	Asn	Leu	Tyr	Cys	Leu	Lys	Pro	Thr	Ile	Cys	Ser	Asp	Gln	Asp
				35					40					45

Asn	Tyr	Cys	Val	Thr	Val	Ser	Ala	Ser	Ala	Gly	Ile	Gly	Asn	Leu
				50					55					60

Val	Thr	Phe	Gly	His	Ser	Leu	Ser	Lys	Thr	Cys	Ser	Pro	Ala	Cys
				65					70					75

Pro	Ile	Pro	Glu	Gly	Val	Asn	Val	Gly	Val	Ala	Ser	Met	Gly	Ile
				80					85					90

Ser	Cys	Cys	Gln	Ser	Phe	Leu	Cys	Asn	Phe	Ser	Ala	Ala	Asp	Gly
				95					100					105

Gly	Leu	Arg	Ala	Ser	Val	Thr	Leu	Leu	Gly	Ala	Gly	Leu	Leu	Leu
				110					115					120

Ser	Leu	Leu	Pro	Ala	Leu	Leu	Arg	Phe	Gly	Pro
				125					130	

<210> 89

<211> 343

<212> PRT

<213> Homo sapien

<220>

<221> Unsure

<222> 233, 328, 333

<223> Unknown amino acid

<400> 89

Met	Leu	Leu	Leu	Lys	Lys	His	Thr	Glu	Asp	Ile	Ser	Ser	Val	Tyr
1				5					10					15

Glu	Ile	Arg	Glu	Arg	Leu	Gly	Ser	Gly	Ala	Phe	Ser	Glu	Val	Val
				20					25					30

Leu	Ala	Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys
				35					40					45

Ile	Pro	Lys	Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	
				50					55					60	
Glu	Ile	Ala	Val	Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	
				65					70					75	
Leu	Glu	Asp	Val	His	Glu	Ser	Pro	Ser	His	Leu	Tyr	Leu	Ala	Met	
				80					85					90	
Glu	Leu	Val	Thr	Gly	Gly	Glu	Leu	Phe	Asp	Arg	Ile	Met	Glu	Arg	
				95					100					105	
Gly	Ser	Tyr	Thr	Glu	Lys	Asp	Ala	Ser	His	Leu	Val	Gly	Gln	Val	
				110					115					120	
Leu	Gly	Ala	Val	Ser	Tyr	Leu	His	Ser	Leu	Gly	Ile	Val	His	Arg	
				125					130					135	
Asp	Leu	Lys	Pro	Glu	Asn	Leu	Leu	Tyr	Ala	Thr	Pro	Phe	Glu	Asp	
				140					145					150	
Ser	Lys	Ile	Met	Val	Ser	Asp	Phe	Gly	Leu	Ser	Lys	Ile	Gln	Ala	
				155					160					165	
Gly	Asn	Met	Leu	Gly	Thr	Ala	Cys	Gly	Thr	Pro	Gly	Tyr	Val	Ala	
				170					175					180	
Pro	Glu	Leu	Leu	Glu	Gln	Lys	Pro	Tyr	Gly	Lys	Ala	Val	Asp	Val	
				185					190					195	
Trp	Ala	Leu	Gly	Val	Ile	Ser	Tyr	Ile	Leu	Leu	Cys	Gly	Tyr	Pro	
				200					205					210	
Pro	Phe	Tyr	Asp	Glu	Ser	Asp	Pro	Glu	Leu	Phe	Ser	Gln	Ile	Leu	
				215					220					225	
Arg	Ala	Ser	Tyr	Glu	Phe	Asp	Xaa	Pro	Phe	Trp	Asp	Asp	Ile	Ser	
				230					235					240	
Glu	Ser	Gly	Lys	Asp	Phe	Ile	Arg	His	Leu	Leu	Glu	Arg	Asp	Leu	
				245					250					255	
Gln	Lys	Arg	Phe	Thr	Cys	Gln	Gln	Ala	Leu	Arg	Asp	Leu	Trp	Ile	
				260					265					270	
Phe	Trp	Asp	Thr	Gly	Phe	Gly	Arg	Asp	Ile	Leu	Gly	Phe	Val	Ser	
				275					280					285	
Glu	Gln	Ile	Arg	Lys	Asn	Phe	Ala	Trp	Thr	His	Trp	Lys	Arg	Ala	
				290					295					300	
Phe	Asn	Ala	Thr	Leu	Phe	Leu	Arg	His	Ile	Arg	Lys	Leu	Gly	Gln	
				305					310					315	
Ile	Pro	Glu	Gly	Glu	Gly	Ala	Ser	Glu	Gln	Gly	Met	Xaa	Arg	His	
				320					325					330	
Ser	His	Xaa	Gly	Leu	Arg	Ala	Gly	Gln	Pro	Pro	Lys	Trp			

335

340

<210> 90
 <211> 911
 <212> PRT
 <213> Homo sapien

<400> 90

Met	Glu	Glu	Leu	Gln	Asp	Asp	Tyr	Glu	Asp	Met	Met	Glu	Glu	Asn	1	5	10	15
Leu	Glu	Gln	Glu	Glu	Tyr	Glu	Asp	Pro	Asp	Ile	Pro	Glu	Ser	Gln	20	25	30	
Met	Glu	Glu	Pro	Ala	Ala	His	Asp	Thr	Glu	Ala	Thr	Ala	Thr	Asp	35	40	45	
Tyr	His	Thr	Thr	Ser	His	Pro	Gly	Thr	His	Glu	Val	Tyr	Val	Glu	50	55	60	
Leu	Gln	Glu	Leu	Val	Met	Asp	Glu	Lys	Asn	Gln	Glu	Leu	Arg	Trp	65	70	75	
Met	Glu	Ala	Ala	Arg	Trp	Val	Gln	Leu	Glu	Glu	Asn	Leu	Gly	Glu	80	85	90	
Asn	Gly	Ala	Trp	Gly	Arg	Pro	His	Leu	Ser	His	Leu	Thr	Phe	Trp	95	100	105	
Ser	Leu	Leu	Glu	Leu	Arg	Arg	Val	Phe	Thr	Lys	Gly	Thr	Val	Leu	110	115	120	
Leu	Asp	Leu	Gln	Glu	Thr	Ser	Leu	Ala	Gly	Val	Ala	Asn	Gln	Leu	125	130	135	
Leu	Asp	Arg	Phe	Ile	Phe	Glu	Asp	Gln	Ile	Arg	Pro	Gln	Asp	Arg	140	145	150	
Glu	Glu	Leu	Leu	Arg	Ala	Leu	Leu	Leu	Lys	His	Ser	His	Ala	Gly	155	160	165	
Glu	Leu	Glu	Ala	Leu	Gly	Gly	Val	Lys	Pro	Ala	Val	Leu	Thr	Arg	170	175	180	
Ser	Gly	Asp	Pro	Ser	Gln	Pro	Leu	Leu	Pro	Gln	His	Ser	Ser	Leu	185	190	195	
Glu	Thr	Gln	Leu	Phe	Cys	Glu	Gln	Gly	Asp	Gly	Gly	Thr	Glu	Gly	200	205	210	
His	Ser	Pro	Ser	Gly	Ile	Leu	Glu	Lys	Ile	Pro	Pro	Asp	Ser	Glu	215	220	225	
Ala	Thr	Leu	Val	Leu	Val	Gly	Arg	Ala	Asp	Phe	Leu	Glu	Gln	Pro	230	235	240	
Val	Leu	Gly	Phe	Val	Arg	Leu	Gln	Glu	Ala	Ala	Glu	Leu	Glu	Ala	245	250	255	

Val Glu Leu Pro	Val Pro Ile Arg Phe	Leu Phe Val Leu Leu Gly	260	265	270
Pro Glu Ala Pro	His Ile Asp Tyr Thr	Gln Leu Gly Arg Ala Ala	275	280	285
Ala Thr Leu Met	Ser Glu Arg Val Phe	Arg Ile Asp Ala Tyr Met	290	295	300
Ala Gln Ser Arg	Gly Glu Leu Leu His	Ser Leu Glu Gly Phe Leu	305	310	315
Asp Cys Ser Leu	Val Leu Pro Pro Thr	Asp Ala Pro Ser Glu Gln	320	325	330
Ala Leu Leu Ser	Leu Val Pro Val Gln	Arg Glu Leu Leu Arg Arg	335	340	345
Arg Tyr Gln Ser	Ser Pro Ala Lys Pro	Asp Ser Ser Phe Tyr Lys	350	355	360
Gly Leu Asp Leu	Asn Gly Gly Pro Asp	Asp Pro Leu Gln Gln Thr	365	370	375
Gly Gln Leu Phe	Gly Gly Leu Val Arg	Asp Ile Arg Arg Arg Tyr	380	385	390
Pro Tyr Tyr Leu	Ser Asp Ile Thr Asp	Ala Phe Ser Pro Gln Val	395	400	405
Leu Ala Ala Val	Ile Phe Ile Tyr Phe	Ala Ala Leu Ser Pro Ala	410	415	420
Ile Thr Phe Gly	Gly Leu Leu Gly Glu	Lys Thr Arg Asn Gln Met	425	430	435
Gly Val Ser Glu	Leu Leu Ile Ser Thr	Ala Val Gln Gly Ile Leu	440	445	450
Phe Ala Leu Leu	Gly Ala Gln Pro Leu	Leu Val Val Gly Phe Ser	455	460	465
Gly Pro Leu Leu	Val Phe Glu Glu Ala	Phe Phe Ser Phe Cys Glu	470	475	480
Thr Asn Gly Leu	Glu Tyr Ile Val Gly	Arg Val Trp Ile Gly Phe	485	490	495
Trp Leu Ile Leu	Leu Val Val Leu Val	Val Ala Phe Glu Gly Ser	500	505	510
Phe Leu Val Arg	Phe Ile Ser Arg Tyr	Thr Gln Glu Ile Phe Ser	515	520	525
Phe Leu Ile Ser	Leu Ile Phe Ile Tyr	Glu Thr Phe Ser Lys Leu	530	535	540
Ile Lys Ile Phe	Gln Asp His Pro Leu	Gln Lys Thr Tyr Asn Tyr			

	545		550		555
Asn Val Leu Met	Val Pro Lys Pro Gln Gly	Pro Leu Pro Asn Thr			
	560		565		570
Ala Leu Leu Ser	Leu Val Leu Met Ala Gly	Thr Phe Phe Phe Ala			
	575		580		585
Met Met Leu Arg	Lys Phe Lys Asn Ser Ser	Tyr Phe Pro Gly Lys			
	590		595		600
Leu Arg Arg Val	Ile Gly Asp Phe Gly Val	Pro Ile Ser Ile Leu			
	605		610		615
Ile Met Val Leu	Val Asp Phe Phe Ile Gln	Asp Thr Tyr Thr Gln			
	620		625		630
Lys Leu Ser Val	Pro Asp Gly Phe Lys Val	Ser Asn Ser Ser Ala			
	635		640		645
Arg Gly Trp Val	Ile His Pro Leu Gly Leu	Arg Ser Glu Phe Pro			
	650		655		660
Ile Trp Met Met	Phe Ala Ser Ala Leu Pro	Ala Leu Leu Val Phe			
	665		670		675
Ile Leu Ile Phe	Leu Glu Ser Gln Ile Thr	Thr Leu Ile Val Ser			
	680		685		690
Lys Pro Glu Arg	Lys Met Val Lys Gly Ser	Gly Phe His Leu Asp			
	695		700		705
Leu Leu Leu Val	Val Gly Met Gly Gly Val	Ala Ala Leu Phe Gly			
	710		715		720
Met Pro Trp Leu	Ser Ala Thr Thr Val Arg	Ser Val Thr His Ala			
	725		730		735
Asn Ala Leu Thr	Val Met Gly Lys Ala Ser	Thr Pro Gly Ala Ala			
	740		745		750
Ala Gln Ile Gln	Glu Val Lys Glu Gln Arg	Ile Ser Gly Leu Leu			
	755		760		765
Val Ala Val Leu	Val Gly Leu Ser Ile Leu	Met Glu Pro Ile Leu			
	770		775		780
Ser Arg Ile Pro	Leu Ala Val Leu Phe Gly	Ile Phe Leu Tyr Met			
	785		790		795
Gly Val Thr Ser	Leu Ser Gly Ile Gln Leu	Phe Asp Arg Ile Leu			
	800		805		810
Leu Leu Phe Lys	Pro Pro Lys Tyr His Pro	Asp Val Pro Tyr Val			
	815		820		825
Lys Arg Val Lys	Thr Trp Arg Met His Leu	Phe Thr Gly Ile Gln			
	830		835		840

Ile	Ile	Cys	Leu	Ala	Val	Leu	Trp	Val	Val	Lys	Ser	Thr	Pro	Ala	
				845					850					855	
Ser	Leu	Ala	Leu	Pro	Phe	Val	Leu	Ile	Leu	Thr	Val	Pro	Leu	Arg	
				860					865					870	
Arg	Val	Leu	Leu	Pro	Leu	Ile	Phe	Arg	Asn	Val	Glu	Leu	Gln	Cys	
				875					880					885	
Leu	Asp	Ala	Asp	Asp	Ala	Lys	Ala	Thr	Phe	Asp	Glu	Glu	Glu	Gly	
				890					895					900	
Arg	Asp	Glu	Tyr	Asp	Glu	Val	Ala	Met	Pro	Val					
				905					910						

<210> 91
 <211> 387
 <212> PRT
 <213> Homo sapien

<400> 91															
Met	Val	Ala	Trp	Val	Val	Ser	Thr	Gly	Val	Ala	Ile	Ala	Cys	Cys	
1				5					10					15	
Ala	Ala	Val	Tyr	Tyr	Leu	Ala	Glu	Tyr	Asn	Leu	Glu	Phe	Leu	Lys	
				20					25					30	
Thr	His	Ser	Asn	Pro	Gly	Ala	Val	Leu	Leu	Leu	Pro	Phe	Val	Val	
				35					40					45	
Ser	Cys	Ile	Asn	Leu	Ala	Val	Pro	Cys	Ile	Tyr	Ser	Met	Phe	Arg	
				50					55					60	
Leu	Val	Glu	Arg	Tyr	Glu	Met	Pro	Arg	His	Glu	Val	Tyr	Val	Leu	
				65					70					75	
Leu	Ile	Arg	Asn	Ile	Phe	Leu	Lys	Ile	Ser	Ile	Ile	Gly	Ile	Leu	
				80					85					90	
Cys	Tyr	Tyr	Trp	Leu	Asn	Thr	Val	Ala	Leu	Ser	Gly	Glu	Glu	Cys	
				95					100					105	
Trp	Glu	Thr	Leu	Ile	Gly	Gln	Asp	Ile	Tyr	Arg	Leu	Leu	Leu	Met	
				110					115					120	
Asp	Phe	Val	Phe	Ser	Leu	Val	Asn	Ser	Phe	Leu	Gly	Glu	Phe	Leu	
				125					130					135	
Arg	Arg	Ile	Ile	Gly	Met	Gln	Leu	Ile	Thr	Ser	Leu	Gly	Leu	Gln	
				140					145					150	
Glu	Phe	Asp	Ile	Ala	Arg	Asn	Val	Leu	Glu	Leu	Ile	Tyr	Ala	Gln	
				155					160					165	
Thr	Leu	Val	Trp	Ile	Gly	Ile	Phe	Phe	Cys	Pro	Leu	Leu	Pro	Phe	
				170					175					180	
Ile	Gln	Met	Ile	Met	Leu	Phe	Ile	Met	Phe	Tyr	Ser	Lys	Asn	Ile	

	185		190		195
Ser Leu Met Met	Asn Phe Gln Pro Pro	Ser Lys Ala Trp Arg	Ala		
	200		205		210
Ser Gln Met Met	Thr Phe Phe Ile Phe	Leu Leu Phe Phe Pro	Ser		
	215		220		225
Phe Thr Gly Val	Leu Cys Thr Leu Ala	Ile Thr Ile Trp Arg	Leu		
	230		235		240
Lys Pro Ser Ala	Asp Cys Gly Pro Phe	Arg Gly Leu Pro Leu	Phe		
	245		250		255
Ile His Ser Ile	Tyr Ser Trp Ile Asp	Thr Leu Ser Thr Arg	Pro		
	260		265		270
Gly Tyr Leu Trp	Val Val Trp Ile Tyr	Arg Asn Leu Ile Gly	Ser		
	275		280		285
Val His Phe Phe	Phe Ile Leu Thr Leu	Ile Val Leu Ile Ile	Thr		
	290		295		300
Tyr Leu Tyr Trp	Gln Ile Thr Glu Gly	Arg Lys Ile Met Ile	Arg		
	305		310		315
Leu Leu His Glu	Gln Ile Ile Asn Glu	Gly Lys Asp Lys Met	Phe		
	320		325		330
Leu Ile Glu Lys	Leu Ile Lys Leu Gln	Asp Met Glu Lys Lys	Ala		
	335		340		345
Asn Pro Ser Ser	Leu Val Leu Glu Arg	Arg Glu Val Glu Gln	Gln		
	350		355		360
Gly Phe Leu His	Leu Gly Glu His Asp	Gly Ser Leu Asp Leu	Arg		
	365		370		375
Ser Arg Arg Ser	Val Gln Glu Gly Asn	Pro Arg Ala			
	380		385		

<210> 92
 <211> 509
 <212> PRT
 <213> Homo sapien

<400> 92
 Met Glu Arg Arg Arg Leu Trp Gly Ser Ile Gln Ser Arg Tyr Ile
 1, 5 10 15
 Ser Met Ser Val Trp Thr Ser Pro Arg Arg Leu Val Glu Leu Ala
 20 25 30
 Gly Gln Ser Leu Leu Lys Asp Glu Ala Leu Ala Ile Ala Ala Leu
 35 40 45
 Glu Leu Leu Pro Arg Glu Leu Phe Pro Pro Leu Phe Met Ala Ala
 50 55 60

Phe	Asp	Gly	Arg	His	Ser	Gln	Thr	Leu	Lys	Ala	Met	Val	Gln	Ala		65	70	75
Trp	Pro	Phe	Thr	Cys	Leu	Pro	Leu	Gly	Val	Leu	Met	Lys	Gly	Gln		80	85	90
His	Leu	His	Leu	Glu	Thr	Phe	Lys	Ala	Val	Leu	Asp	Gly	Leu	Asp		95	100	105
Val	Leu	Leu	Ala	Gln	Glu	Val	Arg	Pro	Arg	Arg	Trp	Lys	Leu	Gln		110	115	120
Val	Leu	Asp	Leu	Arg	Lys	Asn	Ser	His	Gln	Asp	Phe	Trp	Thr	Val		125	130	135
Trp	Ser	Gly	Asn	Arg	Ala	Ser	Leu	Tyr	Ser	Phe	Pro	Glu	Pro	Glu		140	145	150
Ala	Ala	Gln	Pro	Met	Thr	Lys	Lys	Arg	Lys	Val	Asp	Gly	Leu	Ser		155	160	165
Thr	Glu	Ala	Glu	Gln	Pro	Phe	Ile	Pro	Val	Glu	Val	Leu	Val	Asp		170	175	180
Leu	Phe	Leu	Lys	Glu	Gly	Ala	Cys	Asp	Glu	Leu	Phe	Ser	Tyr	Leu		185	190	195
Ile	Glu	Lys	Val	Lys	Arg	Lys	Lys	Asn	Val	Leu	Arg	Leu	Cys	Cys		200	205	210
Lys	Lys	Leu	Lys	Ile	Phe	Ala	Met	Pro	Met	Gln	Asp	Ile	Lys	Met		215	220	225
Ile	Leu	Lys	Met	Val	Gln	Leu	Asp	Ser	Ile	Glu	Asp	Leu	Glu	Val		230	235	240
Thr	Cys	Thr	Trp	Lys	Leu	Pro	Thr	Leu	Ala	Lys	Phe	Ser	Pro	Tyr		245	250	255
Leu	Gly	Gln	Met	Ile	Asn	Leu	Arg	Arg	Leu	Leu	Leu	Ser	His	Ile		260	265	270
His	Ala	Ser	Ser	Tyr	Ile	Ser	Pro	Glu	Lys	Glu	Glu	Gln	Tyr	Ile		275	280	285
Ala	Gln	Phe	Thr	Ser	Gln	Phe	Leu	Ser	Leu	Gln	Cys	Leu	Gln	Ala		290	295	300
Leu	Tyr	Val	Asp	Ser	Leu	Phe	Phe	Leu	Arg	Gly	Arg	Leu	Asp	Gln		305	310	315
Leu	Leu	Arg	His	Val	Met	Asn	Pro	Leu	Glu	Thr	Leu	Ser	Ile	Thr		320	325	330
Asn	Cys	Arg	Leu	Ser	Glu	Gly	Asp	Val	Met	His	Leu	Ser	Gln	Ser		335	340	345
Pro	Ser	Val	Ser	Gln	Leu	Ser	Val	Leu	Ser	Leu	Ser	Gly	Val	Met				

	350		355		360
Leu Thr Asp Val	Ser Pro Glu Pro Leu	Gln Ala Leu Leu Glu	Arg		
	365		370		375
Ala Ser Ala Thr	Leu Gln Asp Leu Val	Phe Asp Glu Cys Gly	Ile		
	380		385		390
Thr Asp Asp Gln	Leu Leu Ala Leu Leu	Pro Ser Leu Ser His	Cys		
	395		400		405
Ser Gln Leu Thr	Thr Leu Ser Phe Tyr	Gly Asn Ser Ile Ser	Ile		
	410		415		420
Ser Ala Leu/Gln	Ser Leu Leu Gln His	Leu Ile Gly Leu Ser	Asn		
	425		430		435
Leu Thr His Val	Leu Tyr Pro Val Pro	Leu Glu Ser Tyr Glu	Asp		
	440		445		450
Ile His Gly Thr	Leu His Leu Glu Arg	Leu Ala Tyr Leu His	Ala		
	455		460		465
Arg Leu Arg Glu	Leu Leu Cys Glu Leu	Gly Arg Pro Ser Met	Val		
	470		475		480
Trp Leu Ser Ala	Asn Pro Cys Pro His	Cys Gly Asp Arg Thr	Phe		
	485		490		495
Tyr Asp Pro Glu	Pro Ile Leu Cys Pro	Cys Phe Met Pro Asn			
	500		505		

<210> 93
 <211> 943
 <212> PRT
 <213> Homo sapien

<400> 93	
Met Thr Gln Arg Ser Ile Ala Gly Pro Ile Cys Asn Leu Lys Phe	
1	15
Val Thr Leu Leu Val Ala Leu Ser Ser Glu Leu Pro Phe Leu Gly	
20	30
Ala Gly Val Gln Leu Gln Asp Asn Gly Tyr Asn Gly Leu Leu Ile	
35	45
Ala Ile Asn Pro Gln Val Pro Glu Asn Gln Asn Leu Ile Ser Asn	
50	60
Ile Lys Glu Met Ile Thr Glu Ala Ser Phe Tyr Leu Phe Asn Ala	
65	75
Thr Lys Arg Arg Val Phe Phe Arg Asn Ile Lys Ile Leu Ile Pro	
80	90
Ala Thr Trp Lys Ala Asn Asn Asn Ser Lys Ile Lys Gln Glu Ser	
95	105

Tyr	Glu	Lys	Ala	Asn	Val	Ile	Val	Thr	Asp	Trp	Tyr	Gly	Ala	His	110	115	120
Gly	Asp	Asp	Pro	Tyr	Thr	Leu	Gln	Tyr	Arg	Gly	Cys	Gly	Lys	Glu	125	130	135
Gly	Lys	Tyr	Ile	His	Phe	Thr	Pro	Asn	Phe	Leu	Leu	Asn	Asp	Asn	140	145	150
Leu	Thr	Ala	Gly	Tyr	Gly	Ser	Arg	Gly	Arg	Val	Phe	Val	His	Glu	155	160	165
Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe	Asp	Glu	Tyr	Ile	Asn	Asp	170	175	180
Lys	Pro	Phe	Tyr	Ile	Asn	Gly	Gln	Asn	Gln	Ile	Lys	Val	Thr	Arg	185	190	195
Cys	Ser	Ser	Asp	Ile	Thr	Gly	Ile	Phe	Val	Cys	Glu	Lys	Gly	Pro	200	205	210
Cys	Pro	Gln	Glu	Asn	Cys	Ile	Ile	Ser	Lys	Leu	Phe	Lys	Glu	Gly	215	220	225
Cys	Thr	Phe	Ile	Tyr	Asn	Ser	Thr	Gln	Asn	Ala	Thr	Ala	Ser	Ile	230	235	240
Met	Phe	Met	Gln	Ser	Leu	Ser	Ser	Val	Val	Glu	Phe	Cys	Asn	Ala	245	250	255
Ser	Thr	His	Asn	Gln	Glu	Ala	Pro	Asn	Leu	Gln	Asn	Gln	Met	Cys	260	265	270
Ser	Leu	Arg	Ser	Ala	Trp	Asp	Val	Ile	Thr	Asp	Ser	Ala	Asp	Phe	275	280	285
His	His	Ser	Phe	Pro	Met	Asn	Gly	Thr	Glu	Leu	Pro	Pro	Pro	Pro	290	295	300
Thr	Phe	Ser	Leu	Val	Gln	Ala	Gly	Asp	Lys	Val	Val	Cys	Leu	Val	305	310	315
Leu	Asp	Val	Ser	Ser	Lys	Met	Ala	Glu	Ala	Asp	Arg	Leu	Leu	Gln	320	325	330
Leu	Gln	Gln	Ala	Ala	Glu	Phe	Tyr	Leu	Met	Gln	Ile	Val	Glu	Ile	335	340	345
His	Thr	Phe	Val	Gly	Ile	Ala	Ser	Phe	Asp	Ser	Lys	Gly	Glu	Ile	350	355	360
Arg	Ala	Gln	Leu	His	Gln	Ile	Asn	Ser	Asn	Asp	Asp	Arg	Lys	Leu	365	370	375
Leu	Val	Ser	Tyr	Leu	Pro	Thr	Thr	Val	Ser	Ala	Lys	Thr	Asp	Ile	380	385	390
Ser	Ile	Cys	Ser	Gly	Leu	Lys	Lys	Gly	Phe	Glu	Val	Val	Glu	Lys			

395	400	405
Leu Asn Gly Lys Ala Tyr Gly Ser Val Met Ile Leu Val Thr Ser		
410	415	420
Gly Asp Asp Lys Leu Leu Gly Asn Cys Leu Pro Thr Val Leu Ser		
425	430	435
Ser Gly Ser Thr Ile His Ser Ile Ala Leu Gly Ser Ser Ala Ala		
440	445	450
Pro Asn Leu Glu Glu Leu Ser Arg Leu Thr Gly Gly Leu Lys Phe		
455	460	465
Phe Val Pro Asp Ile Ser Asn Ser Asn Ser Met Ile Asp Ala Phe		
470	475	480
Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile		
485	490	495
Gln Leu Glu Ser Thr Gly Glu Asn Val Lys Pro His His Gln Leu		
500	505	510
Lys Asn Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met		
515	520	525
Phe Leu Val Thr Trp Gln Ala Ser Gly Pro Pro Glu Ile Ile Leu		
530	535	540
Phe Asp Pro Asp Gly Arg Lys Tyr Tyr Thr Asn Asn Phe Ile Thr		
545	550	555
Asn Leu Thr Phe Arg Thr Ala Ser Leu Trp Ile Pro Gly Thr Ala		
560	565	570
Lys Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His His Ser		
575	580	585
Leu Gln Ala Leu Lys Val Thr Val Thr Ser Arg Ala Ser Asn Ser		
590	595	600
Ala Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser		
605	610	615
Leu His Phe Pro His Pro Val Met Ile Tyr Ala Asn Val Lys Gln		
620	625	630
Gly Phe Tyr Pro Ile Leu Asn Ala Thr Val Thr Ala Thr Val Glu		
635	640	645
Pro Glu Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly		
650	655	660
Ala Gly Ala Asp Val Ile Lys Asn Asp Gly Ile Tyr Ser Arg Tyr		
665	670	675
Phe Phe Ser Phe Ala Ala Asn Gly Arg Tyr Ser Leu Lys Val His		
680	685	690

Val Asn His Ser	Pro Ser Ile Ser Thr	Pro Ala His Ser Ile	Pro
695	700	705	
Gly Ser His Ala	Met Tyr Val Pro Gly	Tyr Thr Ala Asn Gly	Asn
710	715	720	
Ile Gln Met Asn	Ala Pro Arg Lys Ser	Val Gly Arg Asn Glu	Glu
725	730	735	
Glu Arg Lys Trp	Gly Phe Ser Arg Val	Ser Ser Gly Gly Ser	Phe
740	745	750	
Ser Val Leu Gly	Val Pro Ala Gly Pro	His Pro Asp Val Phe	Pro
755	760	765	
Pro Cys Lys Ile	Ile Asp Leu Glu Ala	Val Lys Val Glu Glu	Glu
770	775	780	
Leu Thr Leu Ser	Trp Thr Ala Pro Gly	Glu Asp Phe Asp Gln	Gly
785	790	795	
Gln Ala Thr Ser	Tyr Glu Ile Arg Met	Ser Lys Ser Leu Gln	Asn
800	805	810	
Ile Gln Asp Asp	Phe Asn Asn Ala Ile	Leu Val Asn Thr Ser	Lys
815	820	825	
Arg Asn Pro Gln	Gln Ala Gly Ile Arg	Glu Ile Phe Thr Phe	Ser
830	835	840	
Pro Gln Ile Ser	Thr Asn Gly Pro Glu	His Gln Pro Asn Gly	Glu
845	850	855	
Thr His Glu Ser	His Arg Ile Tyr Val	Ala Ile Arg Ala Met	Asp
860	865	870	
Arg Asn Ser Leu	Gln Ser Ala Val Ser	Asn Ile Ala Gln Ala	Pro
875	880	885	
Leu Phe Ile Pro	Pro Asn Ser Asp Pro	Val Pro Ala Arg Asp	Tyr
890	895	900	
Leu Ile Leu Lys	Gly Val Leu Thr Ala	Met Gly Leu Ile Gly	Ile
905	910	915	
Ile Cys Leu Ile	Ile Val Val Thr His	His Thr Leu Ser Arg	Lys
920	925	930	
Lys Arg Ala Asp	Lys Lys Glu Asn Gly	Thr Lys Leu Leu	
935	940		

<210> 94
 <211> 492
 <212> PRT
 <213> Homo sapien

<400> 94
 Met Ala Leu Asn Ser Gly Ser Pro Pro Ala Ile Gly Pro Tyr Tyr

1	5	10	15
Glu Asn His Gly Tyr Gln Pro Glu Asn Pro Tyr Pro Ala Gln Pro	20	25	30
Thr Val Val Pro Thr Val Tyr Glu Val His Pro Ala Gln Tyr Tyr	35	40	45
Pro Ser Pro Val Pro Gln Tyr Ala Pro Arg Val Leu Thr Gln Ala	50	55	60
Ser Asn Pro Val Val Cys Thr Gln Pro Lys Ser Pro Ser Gly Thr	65	70	75
Val Cys Thr Ser Lys Thr Lys Lys Ala Leu Cys Ile Thr Leu Thr	80	85	90
Leu Gly Thr Phe Leu Val Gly Ala Ala Leu Ala Ala Gly Leu Leu	95	100	105
Trp Lys Phe Met Gly Ser Lys Cys Ser Asn Ser Gly Ile Glu Cys	110	115	120
Asp Ser Ser Gly Thr Cys Ile Asn Pro Ser Asn Trp Cys Asp Gly	125	130	135
Val Ser His Cys Pro Gly Gly Glu Asp Glu Asn Arg Cys Val Arg	140	145	150
Leu Tyr Gly Pro Asn Phe Ile Leu Gln Met Tyr Ser Ser Gln Arg	155	160	165
Lys Ser Trp His Pro Val Cys Gln Asp Asp Trp Asn Glu Asn Tyr	170	175	180
Gly Arg Ala Ala Cys Arg Asp Met Gly Tyr Lys Asn Asn Phe Tyr	185	190	195
Ser Ser Gln Gly Ile Val Asp Asp Ser Gly Ser Thr Ser Phe Met	200	205	210
Lys Leu Asn Thr Ser Ala Gly Asn Val Asp Ile Tyr Lys Lys Leu	215	220	225
Tyr His Ser Asp Ala Cys Ser Ser Lys Ala Val Val Ser Leu Arg	230	235	240
Cys Leu Ala Cys Gly Val Asn Leu Asn Ser Ser Arg Gln Ser Arg	245	250	255
Ile Val Gly Gly Glu Ser Ala Leu Pro Gly Ala Trp Pro Trp Gln	260	265	270
Val Ser Leu His Val Gln Asn Val His Val Cys Gly Gly Ser Ile	275	280	285
Ile Thr Pro Glu Trp Ile Val Thr Ala Ala His Cys Val Glu Lys	290	295	300

Pro Leu Asn Asn Pro Trp His Trp Thr Ala Phe Ala Gly Ile Leu
 305 310 315
 Arg Gln Ser Phe Met Phe Tyr Gly Ala Gly Tyr Gln Val Gln Lys
 320 325 330
 Val Ile Ser His Pro Asn Tyr Asp Ser Lys Thr Lys Asn Asn Asp
 335 340 345
 Ile Ala Leu Met Lys Leu Gln Lys Pro Leu Thr Phe Asn Asp Leu
 350 355 360
 Val Lys Pro Val Cys Leu Pro Asn Pro Gly Met Met Leu Gln Pro
 365 370 375
 Glu Gln Leu Cys Trp Ile Ser Gly Trp Gly Ala Thr Glu Glu Lys
 380 385 390
 Gly Lys Thr Ser Glu Val Leu Asn Ala Ala Lys Val Leu Leu Ile
 395 400 405
 Glu Thr Gln Arg Cys Asn Ser Arg Tyr Val Tyr Asp Asn Leu Ile
 410 415 420
 Thr Pro Ala Met Ile Cys Ala Gly Phe Leu Gln Gly Asn Val Asp
 425 430 435
 Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Thr Ser Asn Asn
 440 445 450
 Asn Ile Trp Trp Leu Ile Gly Asp Thr Ser Trp Gly Ser Gly Cys
 455 460 465
 Ala Lys Ala Tyr Arg Pro Gly Val Tyr Gly Asn Val Met Val Phe
 470 475 480
 Thr Asp Trp Ile Tyr Arg Gln Met Lys Ala Asn Gly
 485 490

<210> 95
 <211> 253
 <212> PRT
 <213> Homo sapien

<400> 95
 Met Ala Arg Ser Leu Leu Leu Pro Leu Gln Ile Leu Leu Leu Ser
 1 5 10 15
 Leu Ala Leu Glu Thr Ala Gly Glu Glu Ala Gln Gly Asp Lys Ile
 20 25 30
 Ile Asp Gly Ala Pro Cys Ala Arg Gly Ser His Pro Trp Gln Val
 35 40 45
 Ala Leu Leu Ser Gly Asn Gln Leu His Cys Gly Gly Val Leu Val
 50 55 60
 Asn Glu Arg Trp Val Leu Thr Ala Ala His Cys Lys Met Asn Glu

	65	70	75
Tyr Thr Val His Leu Gly Ser Asp Thr Leu Gly Asp Arg Arg Ala	80	85	90
Gln Arg Ile Lys Ala Ser Lys Ser Phe Arg His Pro Gly Tyr Ser	95	100	105
Thr Gln Thr His Val Asn Asp Leu Met Leu Val Lys Leu Asn Ser	110	115	120
Gln Ala Arg Leu Ser Ser Met Val Lys Lys Val Arg Leu Pro Ser	125	130	135
Arg Cys Glu Pro Pro Gly Thr Thr Cys Thr Val Ser Gly Trp Gly	140	145	150
Thr Thr Thr Ser Pro Asp Val Thr Phe Pro Ser Asp Leu Met Cys	155	160	165
Val Asp Val Lys Leu Ile Ser Pro Gln Asp Cys Thr Lys Val Tyr	170	175	180
Lys Asp Leu Leu Glu Asn Ser Met Leu Cys Ala Gly Ile Pro Asp	185	190	195
Ser Lys Lys Asn Ala Cys Asn Gly Asp Ser Gly Gly Pro Leu Val	200	205	210
Cys Arg Gly Thr Leu Gln Gly Leu Val Ser Trp Gly Thr Phe Pro	215	220	225
Cys Gly Gln Pro Asn Asp Pro Gly Val Tyr Thr Gln Val Cys Lys	230	235	240
Phe Thr Lys Trp Ile Asn Asp Thr Met Lys Lys His Arg	245	250	

<210> 96
 <211> 339
 <212> PRT
 <213> Homo sapien

<400> 96	
Met Glu Ser Arg Lys Asp Ile Thr Asn Gln Glu Glu Leu Trp Lys	
1 5 10 15	
Met Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys	
20 25 30	
Asp Thr Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His	
35 40 45	
Leu His Gln Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu	
50 55 60	
Leu Gln His Thr Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile	
65 70 75	

Lys Ile Ala Ala Ile Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu	80	85	90
Leu Arg Glu Val Ile His Pro Leu Ala Thr Ser His Gln Gln Tyr	95	100	105
Phe Tyr Lys Ile Pro Ile Leu Val Ile Asn Lys Val Leu Pro Met	110	115	120
Val Ser Ile Thr Leu Leu Ala Leu Val Tyr Leu Pro Gly Val Ile	125	130	135
Ala Ala Ile Val Gln Leu His Asn Gly Thr Lys Tyr Lys Lys Phe	140	145	150
Pro His Trp Leu Asp Lys Trp Met Leu Thr Arg Lys Gln Phe Gly	155	160	165
Leu Leu Ser Phe Phe Phe Ala Val Leu His Ala Ile Tyr Ser Leu	170	175	180
Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu Leu Asn Trp	185	190	195
Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp Ile Glu	200	205	210
His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile Val	215	220	225
Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser	230	235	240
Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser	245	250	255
Lys Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu	260	265	270
Ile Phe Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp	275	280	285
Tyr Thr Pro Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val	290	295	300
Val Leu Ile Phe Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys	305	310	315
Lys Ile Leu Lys Ile Arg His Gly Trp Glu Asp Val Thr Lys Ile	320	325	330
Asn Lys Thr Glu Ile Cys Ser Gln Leu	335		

<210> 97
 <211> 420
 <212> PRT
 <213> Homo sapien

<400> 97

Met	Asp	Ser	Ser	Pro	Ser	Leu	Pro	Leu	Ile	Arg	Thr	Pro	Glu	Ser	1	5	10	15
Ser	Leu	His	Glu	Ala	Leu	Asp	Gln	Cys	Met	Thr	Ala	Leu	Asp	Leu	20	25	30	
Phe	Leu	Thr	Asn	Gln	Phe	Ser	Glu	Ala	Leu	Ser	Tyr	Leu	Lys	Pro	35	40	45	
Arg	Thr	Lys	Glu	Ser	Met	Tyr	His	Ser	Leu	Thr	Tyr	Ala	Thr	Ile	50	55	60	
Leu	Glu	Met	Gln	Ala	Met	Met	Thr	Phe	Asp	Pro	Gln	Asp	Ile	Leu	65	70	75	
Leu	Ala	Gly	Asn	Met	Met	Lys	Glu	Ala	Gln	Met	Leu	Cys	Gln	Arg	80	85	90	
His	Arg	Arg	Lys	Ser	Ser	Val	Thr	Asp	Ser	Phe	Ser	Ser	Leu	Val	95	100	105	
Asn	Arg	Pro	Thr	Leu	Gly	Gln	Phe	Thr	Glu	Glu	Glu	Ile	His	Ala	110	115	120	
Glu	Val	Cys	Tyr	Ala	Glu	Cys	Leu	Leu	Gln	Arg	Ala	Ala	Leu	Thr	125	130	135	
Phe	Leu	Gln	Gly	Ser	Ser	His	Gly	Gly	Ala	Val	Arg	Pro	Arg	Ala	140	145	150	
Leu	His	Asp	Pro	Ser	His	Ala	Cys	Ser	Cys	Pro	Pro	Gly	Pro	Gly	155	160	165	
Arg	Gln	His	Leu	Phe	Leu	Leu	Gln	Asp	Glu	Asn	Met	Val	Ser	Phe	170	175	180	
Ile	Lys	Gly	Gly	Ile	Lys	Val	Arg	Asn	Ser	Tyr	Gln	Thr	Tyr	Lys	185	190	195	
Glu	Leu	Asp	Ser	Leu	Val	Gln	Ser	Ser	Gln	Tyr	Cys	Lys	Gly	Glu	200	205	210	
Asn	His	Pro	His	Phe	Glu	Gly	Gly	Val	Lys	Leu	Gly	Val	Gly	Ala	215	220	225	
Phe	Asn	Leu	Thr	Leu	Ser	Met	Leu	Pro	Thr	Arg	Ile	Leu	Arg	Leu	230	235	240	
Leu	Glu	Phe	Val	Gly	Phe	Ser	Gly	Asn	Lys	Asp	Tyr	Gly	Leu	Leu	245	250	255	
Gln	Leu	Glu	Glu	Gly	Ala	Ser	Gly	His	Ser	Phe	Arg	Ser	Val	Leu	260	265	270	
Cys	Val	Met	Leu	Leu	Leu	Cys	Tyr	His	Thr	Phe	Leu	Thr	Phe	Val	275	280	285	

Leu Gly Thr Gly Asn Val Asn Ile Glu Glu Ala Glu Lys Leu Leu	290	295	300
Lys Pro Tyr Leu Asn Arg Tyr Pro Lys Gly Ala Ile Phe Leu Phe	305	310	315
Phe Ala Gly Arg Ile Glu Val Ile Lys Gly Asn Ile Asp Ala Val	320	325	330
Ser Asp Gly Gly Pro Gly Arg Gly Trp Gly Ser Leu Gly Val Ser	335	340	345
Gln Thr Ser Arg Lys Ser Gly Thr Cys Asp Ile Leu Arg Asp Arg	350	355	360
Ile Asp Trp Gly Arg Gly Gly Gly Gln Glu Arg Thr Asn Gln Arg	365	370	375
Ala Gly Ala Gly Glu Ala Leu Leu Ala Glu Gln Pro Gly Lys Thr	380	385	390
Arg Glu Glu Glu Ala Phe Val Val Pro Gly Ile Leu Thr Gly Arg	395	400	405
Tyr Arg Thr Ala Ala Leu Gln Trp Arg Glu Val Glu Gly Gly Ala	410	415	420

<210> 98
 <211> 514
 <212> PRT
 <213> Homo sapien

<400> 98

Met Ala Asp Ala Glu Val Ile Ile Leu Pro Lys Lys His Lys Lys	1	5	10	15
Lys Lys Glu Arg Lys Ser Leu Pro Glu Glu Asp Val Ala Glu Ile	20	25	30	
Gln His Ala Glu Glu Phe Leu Ile Lys Pro Glu Ser Lys Val Ala	35	40	45	
Lys Leu Asp Thr Ser Gln Trp Pro Leu Leu Leu Lys Asn Phe Asp	50	55	60	
Lys Leu Asn Val Arg Thr Thr His Tyr Thr Pro Leu Ala Cys Gly	65	70	75	
Ser Asn Pro Leu Lys Arg Glu Ile Gly Asp Tyr Ile Arg Thr Gly	80	85	90	
Phe Ile Asn Leu Asp Lys Pro Ser Asn Pro Ser Ser His Glu Val	95	100	105	
Val Ala Trp Ile Arg Arg Ile Leu Arg Val Glu Lys Thr Gly His	110	115	120	
Ser Gly Thr Leu Asp Pro Lys Val Thr Gly Cys Leu Ile Val Cys				

125	130	135
Ile Glu Arg Ala Thr Arg Leu Val Lys Ser Gln Gln Ser Ala Gly		
140	145	150
Lys Glu Tyr Val Gly Ile Val Arg Leu His Asn Ala Ile Glu Gly		
155	160	165
Gly Thr Gln Leu Ser Arg Ala Leu Glu Thr Leu Thr Gly Ala Leu		
170	175	180
Phe Gln Arg Pro Pro Leu Ile Ala Ala Val Lys Arg Gln Leu Arg		
185	190	195
Val Arg Thr Ile Tyr Glu Ser Lys Met Ile Glu Tyr Asp Pro Glu		
200	205	210
Arg Arg Leu Gly Ile Phe Trp Val Ser Cys Glu Ala Gly Thr Tyr		
215	220	225
Ile Arg Thr Leu Cys Val His Leu Gly Leu Leu Leu Gly Val Gly		
230	235	240
Gly Gln Met Gln Glu Leu Arg Arg Val Arg Ser Gly Val Met Ser		
245	250	255
Glu Lys Asp His Met Val Thr Met His Asp Val Leu Asp Ala Gln		
260	265	270
Trp Leu Tyr Asp Asn His Lys Asp Glu Ser Tyr Leu Arg Arg Val		
275	280	285
Val Tyr Pro Leu Glu Lys Leu Leu Thr Ser His Lys Arg Leu Val		
290	295	300
Met Lys Asp Ser Ala Val Asn Ala Ile Cys Tyr Gly Ala Lys Ile		
305	310	315
Met Leu Pro Gly Val Leu Arg Tyr Glu Asp Gly Ile Glu Val Asn		
320	325	330
Gln Glu Ile Val Val Ile Thr Thr Lys Gly Glu Ala Ile Cys Met		
335	340	345
Ala Ile Ala Leu Met Thr Thr Ala Val Ile Ser Thr Cys Asp His		
350	355	360
Gly Ile Val Ala Lys Ile Lys Arg Val Ile Met Glu Arg Asp Thr		
365	370	375
Tyr Pro Arg Lys Trp Gly Leu Gly Pro Lys Ala Ser Gln Lys Lys		
380	385	390
Leu Met Ile Lys Gln Gly Leu Leu Asp Lys His Gly Lys Pro Thr		
395	400	405
Asp Ser Thr Pro Ala Thr Trp Lys Gln Glu Tyr Val Asp Tyr Ser		
410	415	420

Glu Ser Ala Lys Lys Glu Val Val Ala Glu Val Val Lys Ala Pro
 425 430 435
 Gln Val Val Ala Glu Ala Ala Lys Thr Ala Lys Arg Lys Arg Glu
 440 445 450
 Ser Glu Ser Glu Ser Asp Glu Thr Pro Pro Ala Ala Pro Gln Leu
 455 460 465
 Ile Lys Lys Glu Lys Lys Lys Ser Lys Lys Asp Lys Lys Ala Lys
 470 475 480
 Ala Gly Leu Glu Ser Gly Ala Glu Pro Gly Asp Gly Asp Ser Asp
 485 490 495
 Thr Thr Lys Lys Lys Lys Lys Lys Lys Lys Ala Lys Glu Val Glu
 500 505 510
 Leu Val Ser Glu

<210> 99
 <211> 313
 <212> PRT
 <213> Homo sapien

<400> 99
 Met Ala Leu Arg Ile Cys Val Thr Tyr Thr Pro Ala Leu Pro Ile
 1 5 10 15
 Gly Leu Cys Thr Arg Cys Cys Leu Cys Leu Glu Gln Ser Pro Ser
 20 25 30
 Trp Cys His Cys Leu Arg Gly Val Ser Phe Leu Thr Phe His Leu
 35 40 45
 His Gln Ser Val Pro Leu Gly Asp Arg Asp Ser Leu Leu Met Phe
 50 55 60
 Thr Arg Gln Ala Gly His Phe Val Glu Gly Ser Lys Ala Gly Arg
 65 70 75
 Ser Arg Gly Arg Leu Cys Leu Ser Gln Ala Leu Arg Val Ala Val
 80 85 90
 Arg Gly Ala Phe Val Ser Leu Trp Phe Ala Ala Gly Ala Gly Asp
 95 100 105
 Arg Glu Arg Asn Lys Gly Asp Lys Gly Ala Gln Thr Gly Ala Gly
 110 115 120
 Leu Ser Gln Glu Ala Glu Asp Val Asp Val Ser Arg Ala Arg Arg
 125 130 135
 Val Thr Asp Ala Pro Gln Gly Thr Leu Cys Gly Thr Gly Asn Arg
 140 145 150
 Asn Ser Gly Ser Gln Ser Ala Arg Ala Val Gly Val Ala His Leu

155	160	165
Gly Glu Ala Phe Arg Val Gly Val Glu Gln Ala Ile Ser Ser Cys		
170	175	180
Pro Glu Glu Val His Gly Arg His Gly Leu Ser Met Glu Ile Met		
185	190	195
Trp Ala Arg Met Asp Val Ala Leu Arg Ser Pro Gly Arg Gly Leu		
200	205	210
Leu Ala Gly Ala Gly Ala Leu Cys Val Thr Leu Ala Glu Ser Ser		
215	220	225
Cys Pro Asp Tyr Glu Arg Gly Arg Arg Ala Cys Leu Thr Leu His		
230	235	240
Arg His Pro Thr Pro His Cys Ser Thr Trp Gly Leu Pro Leu Arg		
245	250	255
Val Ala Gly Ser Trp Leu Thr Val Val Thr Val Glu Ala Leu Gly		
260	265	270
Gly Trp Arg Met Gly Val Arg Arg Thr Gly Gln Val Gly Pro Thr		
275	280	285
Met His Pro Pro Pro Val Ser Gly Ala Ser Pro Leu Leu Leu His		
290	295	300
His Leu Leu Leu Leu Leu Leu Ile Ile Ile Leu Thr Cys		
305	310	

<210> 100
 <211> 132
 <212> PRT
 <213> Homo sapien

<400> 100

Met Gly Ile Val Ala Asn Phe Gln Glu Leu Ala Val Pro Val Val		
1	5	10
His Asp Gly Gly Ala Leu Leu Ala Phe Val Cys Gly Val Val Tyr		
20	25	30
Thr Leu Leu Gln Ser Ile Ile Ser Tyr Lys Ser Cys Pro Gln Trp		
35	40	45
Asn Ser Leu Ser Thr Cys His Ile Arg Met Val Ile Ser Ala Val		
50	55	60
Ser Cys Ala Ala Val Ile Pro Met Ile Val Cys Ala Ser Leu Ile		
65	70	75
Ser Ile Thr Lys Leu Glu Trp Asn Pro Arg Glu Lys Asp Tyr Val		
80	85	90
Tyr His Val Val Ser Ala Ile Cys Glu Trp Thr Val Ala Phe Gly		
95	100	105

Phe Ile Phe Tyr Phe Leu Thr Phe Ile Gln Asp Phe Gln Ser Val
110 115 120

Thr Leu Arg Ile Ser Thr Glu Ile Asn Gly Asp Ile
125 130

<210> 101
<211> 416
<212> PRT
<213> Homo sapien

<400> 101
Met Pro Arg Gln Leu Ser Ala Ala Ala Ala Leu Phe Ala Ser Leu
1 5 10 15

Ala Val Ile Leu His Asp Gly Ser Gln Met Arg Ala Lys Ala Phe
20 25 30

Pro Glu Thr Arg Asp Tyr Ser Gln Pro Thr Ala Ala Ala Thr Val
35 40 45

Gln Asp Ile Lys Lys Pro Val Gln Gln Pro Ala Lys Gln Ala Pro
50 55 60

His Gln Thr Leu Ala Ala Arg Phe Met Asp Gly His Ile Thr Phe
65 70 75

Gln Thr Ala Ala Thr Val Lys Ile Pro Thr Thr Thr Pro Ala Thr
80 85 90

Thr Lys Asn Thr Ala Thr Thr Ser Pro Ile Thr Tyr Thr Leu Val
95 100 105

Thr Thr Gln Ala Thr Pro Asn Asn Ser His Thr Ala Pro Pro Val
110 115 120

Thr Glu Val Thr Val Gly Pro Ser Leu Ala Pro Tyr Ser Leu Pro
125 130 135

Pro Thr Ile Thr Pro Pro Ala His Thr Ala Gly Thr Ser Ser Ser
140 145 150

Thr Val Ser His Thr Thr Gly Asn Thr Thr Gln Pro Ser Asn Gln
155 160 165

Thr Thr Leu Pro Ala Thr Leu Ser Ile Ala Leu His Lys Ser Thr
170 175 180

Thr Gly Gln Lys Pro Asp Gln Pro Thr His Ala Pro Gly Thr Thr
185 190 195

Ala Ala Ala His Asn Thr Thr Arg Thr Ala Ala Pro Ala Ser Thr
200 205 210

Val Pro Gly Pro Thr Leu Ala Pro Gln Pro Ser Ser Val Lys Thr
215 220 225

Gly Ile Tyr Gln Val Leu Asn Gly Ser Arg Leu Cys Ile Lys Ala

230	235	240
Glu Met Gly Ile Gln Leu Ile Val Gln Asp Lys Glu Ser Val Phe		
245	250	255
Ser Pro Arg Arg Tyr Phe Asn Ile Asp Pro Asn Ala Thr Gln Ala		
260	265	270
Ser Gly Asn Cys Gly Thr Arg Lys Ser Asn Leu Leu Leu Asn Phe		
275	280	285
Gln Gly Gly Phe Val Asn Leu Thr Phe Thr Lys Asp Glu Glu Ser		
290	295	300
Tyr Tyr Ile Ser Glu Val Gly Ala Tyr Leu Thr Val Ser Asp Pro		
305	310	315
Glu Thr Val Tyr Gln Gly Ile Lys His Ala Val Val Met Phe Gln		
320	325	330
Thr Ala Val Gly His Ser Phe Lys Cys Val Ser Glu Gln Ser Leu		
335	340	345
Gln Leu Ser Ala His Leu Gln Val Lys Thr Thr Asp Val Gln Leu		
350	355	360
Gln Ala Phe Asp Phe Glu Asp Asp His Phe Gly Asn Val Asp Glu		
365	370	375
Cys Ser Ser Asp Tyr Thr Ile Val Leu Pro Val Ile Gly Ala Ile		
380	385	390
Val Val Gly Leu Cys Leu Met Gly Met Gly Val Tyr Lys Ile Arg		
395	400	405
Leu Arg Cys Gln Ser Ser Gly Tyr Gln Arg Ile		
410	415	

<210> 102
 <211> 134
 <212> PRT
 <213> Homo sapien

<400> 102
 Met Thr Glu Glu Pro Ile Lys Glu Ile Leu Gly Ala Pro Lys Ala
 1 5 10 15
 His Met Ala Ala Thr Met Glu Lys Ser Pro Lys Ser Glu Val Val
 20 25 30
 Ile Thr Thr Val Pro Leu Val Ser Glu Ile Gln Leu Met Ala Ala
 35 40 45
 Thr Gly Gly Thr Glu Leu Ser Cys Tyr Arg Cys Ile Ile Pro Phe
 50 55 60
 Ala Val Val Val Phe Ile Ala Gly Ile Val Val Thr Ala Val Ala
 65 70 75

Tyr Ser Phe Asn Ser His Gly Ser Ile Ile Ser Ile Phe Gly Leu
 80 85 90
 Val Val Leu Ser Ser Gly Leu Phe Leu Leu Ala Ser Ser Ala Leu
 95 100 105
 Cys Trp Lys Val Arg Gln Arg Ser Lys Lys Ala Lys Arg Arg Glu
 110 115 120
 Ser Gln Thr Ala Leu Val Ala Asn Gln Arg Ser Leu Phe Ala
 125 130

<210> 103
 <211> 318
 <212> PRT
 <213> Homo sapien

<400> 103
 Met Leu Ser Leu Leu His Ala Ser Thr Leu Ala Val Leu Gly Ala
 1 5 10 15
 Leu Cys Val Tyr Gly Ala Gly His Leu Glu Gln Pro Gln Ile Ser
 20 25 30
 Ser Thr Lys Thr Leu Ser Lys Thr Ala Arg Leu Glu Cys Val Val
 35 40 45
 Ser Gly Ile Thr Ile Ser Ala Thr Ser Val Tyr Trp Tyr Arg Glu
 50 55 60
 Arg Pro Gly Glu Val Ile Gln Phe Leu Val Ser Ile Ser Tyr Asp
 65 70 75
 Gly Thr Val Arg Lys Glu Ser Gly Ile Pro Ser Gly Lys Phe Glu
 80 85 90
 Val Asp Arg Ile Pro Glu Thr Ser Thr Ser Thr Leu Thr Ile His
 95 100 105
 Asn Val Glu Lys Gln Asp Ile Ala Thr Tyr Tyr Cys Ala Leu Trp
 110 115 120
 Glu Val Arg Leu Ala Asn Gln Glu Leu Gly Lys Lys Ile Lys Val
 125 130 135
 Phe Gly Pro Gly Thr Lys Leu Ile Ile Thr Asp Lys Gln Leu Asp
 140 145 150
 Ala Asp Val Ser Pro Lys Pro Thr Ile Phe Leu Pro Ser Ile Ala
 155 160 165
 Glu Thr Lys Leu Gln Lys Ala Gly Thr Tyr Leu Cys Leu Leu Glu
 170 175 180
 Lys Phe Phe Pro Asp Val Ile Lys Ile His Trp Gln Glu Lys Lys
 185 190 195
 Ser Asn Thr Ile Leu Gly Ser Gln Glu Gly Asn Thr Met Lys Thr

	200		205		210
Asn Asp Thr Tyr	Met Lys Phe Ser Trp	Leu Thr Val Pro Glu Lys			
	215		220		225
Ser Leu Asp Lys	Glu His Arg Cys Ile	Val Arg His Glu Asn Asn			
	230		235		240
Lys Asn Gly Val	Asp Gln Glu Ile Ile	Phe Pro Pro Ile Lys Thr			
	245		250		255
Asp Val Ile Thr	Met Asp Pro Lys Asp	Asn Cys Ser Lys Asp Ala			
	260		265		270
Asn Asp Thr Leu	Leu Leu Gln Leu Thr	Asn Thr Ser Ala Tyr Tyr			
	275		280		285
Thr Tyr Leu Leu	Leu Leu Leu Lys Ser	Val Val Tyr Phe Ala Ile			
	290		295		300
Ile Thr Cys Cys	Leu Leu Arg Arg Thr	Ala Phe Cys Cys Asn Gly			
	305		310		315

Glu Lys Ser

<210> 104
 <211> 440
 <212> PRT
 <213> Homo sapien

<400> 104

Met Asn Tyr Ser	Leu His Leu Ala Phe	Val Cys Leu Ser Leu Phe
1	5	10 15
Thr Glu Arg Met	Cys Ile Gln Gly Ser	Gln Phe Asn Val Glu Val
	20	25 30
Gly Arg Ser Asp	Lys Leu Ser Leu Pro	Gly Phe Glu Asn Leu Thr
	35	40 45
Ala Gly Tyr Asn	Lys Phe Leu Arg Pro	Asn Phe Gly Gly Glu Pro
	50	55 60
Val Gln Ile Ala	Leu Thr Leu Asp Ile	Ala Ser Ile Ser Ser Ile
	65	70 75
Ser Glu Ser Asn	Met Asp Tyr Thr Ala	Thr Ile Tyr Leu Arg Gln
	80	85 90
Arg Trp Met Asp	Gln Arg Leu Val Phe	Glu Gly Asn Lys Ser Phe
	95	100 105
Thr Leu Asp Ala	Arg Leu Val Glu Phe	Leu Trp Val Pro Asp Thr
	110	115 120
Tyr Ile Val Glu	Ser Lys Lys Ser Phe	Leu His Glu Val Thr Val
	125	130 135

Gly Asn Arg Leu	Ile Arg Leu Phe Ser	Asn Gly Thr Val Leu Tyr
140	145	150
Ala Leu Arg Ile	Thr Thr Thr Val Ala Cys Asn Met Asp Leu Ser	
155	160	165
Lys Tyr Pro Met	Asp Thr Gln Thr Cys Lys Leu Gln Leu Glu Ser	
170	175	180
Trp Gly Tyr Asp	Gly Asn Asp Val Glu Phe Thr Trp Leu Arg Gly	
185	190	195
Asn Asp Ser Val	Arg Gly Leu Glu His Leu Arg Leu Ala Gln Tyr	
200	205	210
Thr Ile Glu Arg	Tyr Phe Thr Leu Val Thr Arg Ser Gln Gln Glu	
215	220	225
Thr Gly Asn Tyr	Thr Arg Leu Val Leu Gln Phe Glu Leu Arg Arg	
230	235	240
Asn Val Leu Tyr	Phe Ile Leu Glu Thr Tyr Val Pro Ser Thr Phe	
245	250	255
Leu Val Val Leu	Ser Trp Val Ser Phe Trp Ile Ser Leu Asp Ser	
260	265	270
Val Pro Ala Arg	Thr Cys Ile Gly Val Thr Thr Val Leu Ser Met	
275	280	285
Thr Thr Leu Met	Ile Gly Ser Arg Thr Ser Leu Pro Asn Thr Asn	
290	295	300
Cys Phe Ile Lys	Ala Ile Asp Val Tyr Leu Gly Ile Cys Phe Ser	
305	310	315
Phe Val Phe Gly	Ala Leu Leu Glu Tyr Ala Val Ala His Tyr Ser	
320	325	330
Ser Leu Gln Gln	Met Ala Ala Lys Asp Arg Gly Thr Thr Lys Glu	
335	340	345
Val Glu Glu Val	Ser Ile Thr Asn Ile Ile Asn Ser Ser Ile Ser	
350	355	360
Ser Phe Lys Arg	Lys Ile Ser Phe Ala Ser Ile Glu Ile Ser Ser	
365	370	375
Asp Asn Val Asp	Tyr Ser Asp Leu Thr Met Lys Thr Ser Asp Lys	
380	385	390
Phe Lys Phe Val	Phe Arg Glu Lys Met Gly Arg Ile Val Asp Tyr	
395	400	405
Phe Thr Ile Gln	Asn Pro Ser Asn Val Asp His Tyr Ser Lys Leu	
410	415	420
Leu Phe Pro Leu	Ile Phe Met Leu Ala Asn Val Phe Tyr Trp Ala	

	425		430		435
Tyr Tyr Met Tyr Phe					
440					
<210> 105					
<211> 508					
<212> PRT					
<213> Homo sapien					
<400> 105					
Met Ile Leu Val Leu Leu Cys Ala Phe Leu Ile Pro Cys Pro Pro					
1	5		10		15
Arg Asp Leu His Ser Thr Trp Ser Arg His Leu Gly Ser Gln Gly					
	20		25		30
Gly Gly Asp Leu Ser Pro Leu Glu Leu Ala Asp Val Asn Gly Asp					
	35		40		45
Gly Leu Arg Asp Val Leu Leu Ser Phe Val Met Ser Arg Asn Gly					
	50		55		60
Ser Ala Val Gly Val Ser Arg Pro Ala Ala Asn Leu Val Cys Leu					
	65		70		75
Ser Gly Met Asn Gly Ser Thr Leu Trp Ser Ser Leu Leu Pro Glu					
	80		85		90
Glu Ala Arg Asp Ile Thr Cys Leu Glu Leu Met Pro Gly Ser Leu					
	95		100		105
Ala Glu Thr Ile Cys Leu Val Thr Gly Thr His Lys Met Leu Ser					
	110		115		120
Ala Phe Asn Ala Thr Ser Gly Lys Ala Ile Trp Thr Leu Asn Pro					
	125		130		135
Asn Tyr Leu Ser Asn Gly Thr Leu Ala Ala Pro Val Val Val Leu					
	140		145		150
Pro Asp Leu Asp Glu Asp Gly Val Arg Asp Leu Val Val Leu Ala					
	155		160		165
Ile Gly Glu Leu Gln Pro Asp Leu Cys Phe Leu Leu Val Ser Gly					
	170		175		180
Arg Thr Gly Asn Pro Val Gly Arg Pro Val Lys Tyr Asn Ile Val					
	185		190		195
Gly Val Gly Asn Leu Ile Gly Pro Gln Val Tyr Ile Thr Thr Asn					
	200		205		210
Gly Ala Val Tyr Ile Leu Phe Gly Phe Gly Asn Ile Gln Ala Val					
	215		220		225
Ala Leu Arg Asp Ile Phe Val Gln Ala Gln Asn Arg Asp Ser Ser					
	230		235		240

Pro	Pro	Ser	Leu	Gln	Ile	Glu	Glu	Pro	Glu	Trp	Glu	Lys	Arg	Arg		245	250	255
Ser	Ile	Asn	Leu	Ser	Glu	Leu	Ile	Asp	Val	Tyr	Ser	Asp	Gly	Val		260	265	270
Glu	Leu	Leu	Gln	Met	Val	Lys	Ala	Pro	Asp	Ser	Asn	Cys	Ser	Asn		275	280	285
Leu	Leu	Ile	Thr	Thr	Arg	Gln	Ser	Leu	Val	Leu	Leu	Arg	Gly	Gln		290	295	300
Asn	Leu	Thr	Pro	Tyr	Trp	Ala	Leu	Arg	Leu	Gln	Gly	Leu	Arg	Ser		305	310	315
Gln	Pro	Thr	Pro	Gly	Tyr	Phe	Thr	Asp	Asp	Gln	Thr	Leu	Asp	Phe		320	325	330
Leu	Leu	Gln	Ile	Gln	Asp	Gly	Val	Gly	Met	Lys	Lys	Met	Met	Val		335	340	345
Val	Asp	Gly	Asp	Ser	Gly	Ser	Ile	Val	Trp	Ser	Tyr	Arg	Ala	Pro		350	355	360
Cys	His	Met	Lys	Glu	Thr	Pro	Ala	Thr	Ser	Ala	Val	Thr	Ser	Asp		365	370	375
Gln	Lys	Ser	Val	Phe	Leu	Phe	Trp	Ala	Glu	Gly	Leu	Ser	Ala	Ala		380	385	390
Ser	Pro	Asn	Ser	Asp	Ile	Ile	Leu	Gly	Thr	Glu	Pro	Pro	Ser	Leu		395	400	405
His	His	Leu	Tyr	Leu	Leu	His	Pro	Ala	Phe	Pro	Ser	Ile	Leu	Leu		410	415	420
Asp	Leu	Ala	Asn	Thr	Thr	Gly	Thr	Val	Thr	Ala	Ser	Glu	Val	Gly		425	430	435
Ile	Asn	Asp	Leu	Trp	Lys	Asp	Ala	Phe	Tyr	Val	Thr	Arg	Thr	Thr		440	445	450
Gly	Pro	Ser	Ser	Glu	Gly	His	Pro	Ala	Ala	Leu	Val	Val	Ser	Lys		455	460	465
Leu	Ser	Leu	Arg	Trp	Ala	Leu	Met	Glu	Gly	Gln	Met	Ala	Gln	Leu		470	475	480
Gln	Glu	Ser	Thr	Pro	Lys	Ile	Gly	Arg	Gly	Glu	Leu	Arg	Arg	Phe		485	490	495
Leu	Ser	Arg	Ile	Lys	Phe	Val	Glu	Ala	Pro	Tyr	Glu	Ile				500	505	

<210> 106
 <211> 132
 <212> PRT
 <213> Homo sapien

<400> 106

Met	Ser	Asn	Lys	Phe	Leu	Gly	Thr	Trp	Lys	Leu	Val	Ser	Ser	Glu
1				5					10					15
Asn	Phe	Asp	Asp	Tyr	Met	Lys	Ala	Leu	Gly	Val	Gly	Leu	Ala	Thr
				20					25					30
Arg	Lys	Leu	Gly	Asn	Leu	Ala	Lys	Pro	Thr	Val	Ile	Ile	Ser	Lys
				35					40					45
Lys	Gly	Asp	Ile	Ile	Thr	Ile	Arg	Thr	Glu	Ser	Thr	Phe	Lys	Asn
				50					55					60
Thr	Glu	Ile	Ser	Phe	Lys	Leu	Gly	Gln	Glu	Phe	Glu	Glu	Thr	Thr
				65					70					75
Ala	Asp	Asn	Arg	Lys	Thr	Lys	Ser	Ile	Val	Thr	Leu	Gln	Arg	Gly
				80					85					90
Ser	Leu	Asn	Gln	Val	Gln	Arg	Trp	Asp	Gly	Lys	Glu	Thr	Thr	Ile
				95					100					105
Lys	Arg	Lys	Leu	Val	Asn	Gly	Lys	Met	Val	Ala	Glu	Cys	Lys	Met
				110					115					120
Lys	Gly	Val	Val	Cys	Thr	Arg	Ile	Tyr	Glu	Lys	Val			
				125					130					

<210> 107

<211> 518

<212> PRT

<213> Homo sapien

<400> 107

Met	Gly	Ala	Leu	Ala	Arg	Ala	Leu	Leu	Leu	Pro	Leu	Leu	Ala	Gln
1				5					10					15
Trp	Leu	Leu	Arg	Ala	Ala	Pro	Glu	Leu	Ala	Pro	Ala	Pro	Phe	Thr
				20					25					30
Leu	Pro	Leu	Arg	Val	Ala	Ala	Ala	Thr	Asn	Arg	Val	Val	Ala	Pro
				35					40					45
Thr	Pro	Gly	Pro	Gly	Thr	Pro	Ala	Glu	Arg	His	Ala	Asp	Gly	Leu
				50					55					60
Ala	Leu	Ala	Leu	Glu	Pro	Ala	Leu	Ala	Ser	Pro	Ala	Gly	Ala	Ala
				65					70					75
Asn	Phe	Leu	Ala	Met	Val	Asp	Asn	Leu	Gln	Gly	Asp	Ser	Gly	Arg
				80					85					90
Gly	Tyr	Tyr	Leu	Glu	Met	Leu	Ile	Gly	Thr	Pro	Pro	Gln	Lys	Leu
				95					100					105
Gln	Ile	Leu	Val	Asp	Thr	Gly	Ser	Ser	Asn	Phe	Ala	Val	Ala	Gly
				110					115					120

Thr	Pro	His	Ser	Tyr	Ile	Asp	Thr	Tyr	Phe	Asp	Thr	Glu	Arg	Ser		125	130	135
Ser	Thr	Tyr	Arg	Ser	Lys	Gly	Phe	Asp	Val	Thr	Val	Lys	Tyr	Thr		140	145	150
Gln	Gly	Ser	Trp	Thr	Gly	Phe	Val	Gly	Glu	Asp	Leu	Val	Thr	Ile		155	160	165
Pro	Lys	Gly	Phe	Asn	Thr	Ser	Phe	Leu	Val	Asn	Ile	Ala	Thr	Ile		170	175	180
Phe	Glu	Ser	Glu	Asn	Phe	Phe	Leu	Pro	Gly	Ile	Lys	Trp	Asn	Gly		185	190	195
Ile	Leu	Gly	Leu	Ala	Tyr	Ala	Thr	Leu	Ala	Lys	Pro	Ser	Ser	Ser		200	205	210
Leu	Glu	Thr	Phe	Phe	Asp	Ser	Leu	Val	Thr	Gln	Ala	Asn	Ile	Pro		215	220	225
Asn	Val	Phe	Ser	Met	Gln	Met	Cys	Gly	Ala	Gly	Leu	Pro	Val	Ala		230	235	240
Gly	Ser	Gly	Thr	Asn	Gly	Gly	Ser	Leu	Val	Leu	Gly	Gly	Ile	Glu		245	250	255
Pro	Ser	Leu	Tyr	Lys	Gly	Asp	Ile	Trp	Tyr	Thr	Pro	Ile	Lys	Glu		260	265	270
Glu	Trp	Tyr	Tyr	Gln	Ile	Glu	Ile	Leu	Lys	Leu	Glu	Ile	Gly	Gly		275	280	285
Gln	Ser	Leu	Asn	Leu	Asp	Cys	Arg	Glu	Tyr	Asn	Ala	Asp	Lys	Ala		290	295	300
Ile	Val	Asp	Ser	Gly	Thr	Thr	Leu	Leu	Arg	Leu	Pro	Gln	Lys	Val		305	310	315
Phe	Asp	Ala	Val	Val	Glu	Ala	Val	Ala	Arg	Ala	Ser	Leu	Ile	Pro		320	325	330
Glu	Phe	Ser	Asp	Gly	Phe	Trp	Thr	Gly	Ser	Gln	Leu	Ala	Cys	Trp		335	340	345
Thr	Asn	Ser	Glu	Thr	Pro	Trp	Ser	Tyr	Phe	Pro	Lys	Ile	Ser	Ile		350	355	360
Tyr	Leu	Arg	Asp	Glu	Asn	Ser	Ser	Arg	Ser	Phe	Arg	Ile	Thr	Ile		365	370	375
Leu	Pro	Gln	Leu	Tyr	Ile	Gln	Pro	Met	Met	Gly	Ala	Gly	Leu	Asn		380	385	390
Tyr	Glu	Cys	Tyr	Arg	Phe	Gly	Ile	Ser	Pro	Ser	Thr	Asn	Ala	Leu		395	400	405
Val	Ile	Gly	Ala	Thr	Val	Met	Glu	Gly	Phe	Tyr	Val	Ile	Phe	Asp				

410	415	420
Arg Ala Gln Lys	Arg Val Gly Phe Ala Ala Ser Pro Cys Ala Glu	
425	430	435
Ile Ala Gly Ala	Ala Val Ser Glu Ile Ser Gly Pro Phe Ser Thr	
440	445	450
Glu Asp Val Ala	Ser Asn Cys Val Pro Ala Gln Ser Leu Ser Glu	
455	460	465
Pro Ile Leu Trp	Ile Val Ser Tyr Ala Leu Met Ser Val Cys Gly	
470	475	480
Ala Ile Leu Leu	Val Leu Ile Val Leu Leu Leu Leu Pro Phe Arg	
485	490	495
Cys Gln Arg Arg	Pro Arg Asp Pro Glu Val Val Asn Asp Glu Ser	
500	505	510
Ser Leu Val Arg	His Arg Trp Lys	
515		

<210> 108
 <211> 440
 <212> PRT
 <213> Homo sapien

<400> 108

Met Ala Val Lys	Leu Gly Thr Leu Leu Leu Ala Leu Ala Leu Gly	
1	5	10 15
Leu Ala Gln Pro	Ala Ser Ala Arg Arg Lys Leu Leu Val Phe Leu	
20	25	30
Leu Asp Gly Phe	Arg Ser Asp Tyr Ile Ser Asp Glu Ala Leu Glu	
35	40	45
Ser Leu Pro Gly	Phe Lys Glu Ile Val Ser Arg Gly Val Lys Val	
50	55	60
Asp Tyr Leu Thr	Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr	
65	70	75
Tyr Thr Leu Met	Thr Gly Arg His Cys Glu Val His Gln Met Ile	
80	85	90
Gly Asn Tyr Met	Trp Asp Pro Thr Thr Asn Lys Ser Phe Asp Ile	
95	100	105
Gly Val Asn Lys	Asp Ser Leu Met Pro Leu Trp Trp Asn Gly Ser	
110	115	120
Glu Pro Leu Trp	Val Thr Leu Thr Lys Ala Lys Arg Lys Val Tyr	
125	130	135
Met Tyr Tyr Trp	Pro Gly Cys Glu Val Glu Ile Leu Gly Val Arg	
140	145	150

Pro Thr Tyr Cys	Leu Glu Tyr Lys Asn	Val Pro Thr Asp Ile Asn
155	160	165
Phe Ala Asn Ala	Val Ser Asp Ala Leu Asp	Ser Phe Lys Ser Gly
170	175	180
Arg Ala Asp Leu	Ala Ala Ile Tyr His	Glu Arg Ile Asp Val Glu
185	190	195
Gly His His Tyr	Gly Pro Ala Ser Pro	Gln Arg Lys Asp Ala Leu
200	205	210
Lys Ala Val Asp	Thr Val Leu Lys Tyr	Met Thr Lys Trp Ile Gln
215	220	225
Glu Arg Gly Leu	Gln Asp Arg Leu Asn	Val Ile Ile Phe Ser Asp
230	235	240
His Gly Met Thr	Asp Ile Phe Trp Met	Asp Lys Val Ile Glu Leu
245	250	255
Asn Lys Tyr Ile	Ser Leu Asn Asp Leu	Gln Gln Val Lys Asp Arg
260	265	270
Gly Pro Val Val	Ser Leu Trp Pro Ala	Pro Gly Lys His Ser Glu
275	280	285
Ile Tyr Asn Lys	Leu Ser Thr Val Glu	His Met Thr Val Tyr Glu
290	295	300
Lys Glu Ala Ile	Pro Ser Arg Phe Tyr	Tyr Lys Lys Gly Lys Phe
305	310	315
Val Ser Pro Leu	Thr Leu Val Ala Asp	Glu Gly Trp Phe Ile Thr
320	325	330
Glu Asn Arg Glu	Met Leu Pro Phe Trp	Met Asn Ser Thr Gly Arg
335	340	345
Arg Glu Gly Trp	Gln Arg Gly Trp His	Gly Tyr Asp Asn Glu Leu
350	355	360
Met Asp Met Arg	Gly Ile Phe Leu Ala	Phe Gly Pro Asp Phe Lys
365	370	375
Ser Asn Phe Arg	Ala Ala Pro Ile Arg	Ser Val Asp Val Tyr Asn
380	385	390
Val Met Cys Asn	Val Val Gly Ile Thr	Pro Leu Pro Asn Asn Gly
395	400	405
Ser Trp Ser Arg	Val Met Cys Met Leu	Lys Gly Arg Ala Gly Thr
410	415	420
Ala Pro Pro Val	Trp Pro Ser His Cys	Ala Leu Ala Leu Ile Leu
425	430	435
Leu Phe Leu Leu	Ala	

<210> 109
 <211> 90
 <212> PRT
 <213> Homo sapien

<400> 109

Met	Lys	Phe	Leu	Ala	Val	Leu	Val	Leu	Leu	Gly	Val	Ser	Ile	Phe
1				5					10					15
Leu	Val	Ser	Ala	Gln	Asn	Pro	Thr	Thr	Ala	Ala	Pro	Ala	Asp	Thr
				20					25					30
Tyr	Pro	Ala	Thr	Gly	Pro	Ala	Asp	Asp	Glu	Ala	Pro	Asp	Ala	Glu
				35					40					45
Thr	Thr	Ala	Ala	Ala	Thr	Thr	Ala	Thr	Thr	Ala	Ala	Pro	Thr	Thr
				50					55					60
Ala	Thr	Thr	Ala	Ala	Ser	Thr	Thr	Ala	Arg	Lys	Asp	Ile	Pro	Val
				65					70					75
Leu	Pro	Lys	Trp	Val	Gly	Asp	Leu	Pro	Asn	Gly	Arg	Val	Cys	Pro
				80					85					90

<210> 110
 <211> 256
 <212> PRT
 <213> Homo sapien

<400> 110

Met	Phe	Gln	Thr	Gly	Gly	Leu	Ile	Val	Phe	Tyr	Gly	Leu	Leu	Ala
1				5					10					15
Gln	Thr	Met	Ala	Gln	Phe	Gly	Gly	Leu	Pro	Val	Pro	Leu	Asp	Gln
				20					25					30
Thr	Leu	Pro	Leu	Asn	Val	Asn	Pro	Ala	Leu	Pro	Leu	Ser	Pro	Thr
				35					40					45
Gly	Leu	Ala	Gly	Ser	Leu	Thr	Asn	Ala	Leu	Ser	Asn	Gly	Leu	Leu
				50					55					60
Ser	Gly	Gly	Leu	Leu	Gly	Ile	Leu	Glu	Asn	Leu	Pro	Leu	Leu	Asp
				65					70					75
Ile	Leu	Lys	Pro	Gly	Gly	Gly	Thr	Ser	Gly	Gly	Leu	Leu	Gly	Gly
				80					85					90
Leu	Leu	Gly	Lys	Val	Thr	Ser	Val	Ile	Pro	Gly	Leu	Asn	Asn	Ile
				95					100					105
Ile	Asp	Ile	Lys	Val	Thr	Asp	Pro	Gln	Leu	Leu	Glu	Leu	Gly	Leu
				110					115					120
Val	Gln	Ser	Pro	Asp	Gly	His	Arg	Leu	Tyr	Val	Thr	Ile	Pro	Leu
				125					130					135

Gly	Ile	Lys	Leu	Gln	Val	Asn	Thr	Pro	Leu	Val	Gly	Ala	Ser	Leu	
				140					145					150	
Leu	Arg	Leu	Ala	Val	Lys	Leu	Asp	Ile	Thr	Ala	Glu	Ile	Leu	Ala	
				155					160					165	
Val	Arg	Asp	Lys	Gln	Glu	Arg	Ile	His	Leu	Val	Leu	Gly	Asp	Cys	
				170					175					180	
Thr	His	Ser	Pro	Gly	Ser	Leu	Gln	Ile	Ser	Leu	Leu	Asp	Gly	Leu	
				185					190					195	
Gly	Pro	Leu	Pro	Ile	Gln	Gly	Leu	Leu	Asp	Ser	Leu	Thr	Gly	Ile	
				200					205					210	
Leu	Asn	Lys	Val	Leu	Pro	Glu	Leu	Val	Gln	Gly	Asn	Val	Cys	Pro	
				215					220					225	
Leu	Val	Asn	Glu	Val	Leu	Arg	Gly	Leu	Asp	Ile	Thr	Leu	Val	His	
				230					235					240	
Asp	Ile	Val	Asn	Met	Leu	Ile	His	Gly	Leu	Gln	Phe	Val	Ile	Lys	
				245					250					255	

Val

<210> 111
 <211> 775
 <212> PRT
 <213> Homo sapien

<400> 111

Met	Glu	Pro	Pro	Tyr	Ser	Leu	Thr	Ala	His	Tyr	Asp	Glu	Phe	Gln	
1				5					10					15	
Glu	Val	Lys	Tyr	Val	Ser	Arg	Cys	Gly	Ala	Gly	Gly	Ala	Arg	Gly	
				20					25					30	
Ala	Ser	Leu	Pro	Pro	Gly	Phe	Pro	Leu	Gly	Ala	Ala	Arg	Ser	Val	
				35					40					45	
Thr	Gly	Ala	Arg	Ser	Gly	Leu	Pro	Arg	Trp	Asn	Arg	Arg	Glu	Val	
				50					55					60	
Cys	Leu	Leu	Ser	Gly	Leu	Val	Phe	Ala	Ala	Gly	Leu	Cys	Ala	Ile	
				65					70					75	
Leu	Ala	Ala	Met	Leu	Ala	Leu	Lys	Tyr	Leu	Gly	Pro	Val	Ala	Ala	
				80					85					90	
Gly	Gly	Gly	Ala	Cys	Pro	Glu	Gly	Cys	Pro	Glu	Arg	Lys	Ala	Phe	
				95					100					105	
Ala	Arg	Ala	Ala	Arg	Phe	Leu	Ala	Ala	Asn	Leu	Asp	Ala	Ser	Ile	
				110					115					120	
Asp	Pro	Cys	Gln	Asp	Phe	Tyr	Ser	Phe	Ala	Cys	Gly	Gly	Trp	Leu	

125					130					135				
Arg	Arg	His	Ala	Ile	Pro	Asp	Asp	Lys	Leu	Thr	Tyr	Gly	Thr	Ile
				140					145					150
Ala	Ala	Ile	Gly	Glu	Gln	Asn	Glu	Glu	Arg	Leu	Arg	Arg	Leu	Leu
				155					160					165
Ala	Arg	Pro	Gly	Gly	Gly	Pro	Gly	Gly	Ala	Ala	Gln	Arg	Lys	Val
				170					175					180
Arg	Ala	Phe	Phe	Arg	Ser	Cys	Leu	Asp	Met	Arg	Glu	Ile	Glu	Arg
				185					190					195
Leu	Gly	Pro	Arg	Pro	Met	Leu	Glu	Val	Ile	Glu	Asp	Cys	Gly	Gly
				200					205					210
Trp	Asp	Leu	Gly	Gly	Ala	Glu	Glu	Arg	Pro	Gly	Val	Ala	Ala	Arg
				215					220					225
Trp	Asp	Leu	Asn	Arg	Leu	Leu	Tyr	Lys	Ala	Gln	Gly	Val	Tyr	Ser
				230					235					240
Ala	Ala	Ala	Leu	Phe	Ser	Leu	Thr	Val	Ser	Leu	Asp	Asp	Arg	Asn
				245					250					255
Ser	Ser	Arg	Tyr	Val	Ile	Arg	Ile	Asp	Gln	Asp	Gly	Leu	Thr	Leu
				260					265					270
Pro	Glu	Arg	Thr	Leu	Tyr	Leu	Ala	Gln	Asp	Glu	Asp	Ser	Glu	Lys
				275					280					285
Ile	Leu	Ala	Ala	Tyr	Arg	Val	Phe	Met	Glu	Arg	Val	Leu	Ser	Leu
				290					295					300
Leu	Gly	Ala	Asp	Ala	Val	Glu	Gln	Lys	Ala	Gln	Glu	Ile	Leu	Gln
				305					310					315
Val	Glu	Gln	Gln	Leu	Ala	Asn	Ile	Thr	Val	Ser	Glu	Tyr	Asp	Asp
				320					325					330
Leu	Arg	Arg	Asp	Val	Ser	Ser	Met	Tyr	Asn	Lys	Val	Thr	Leu	Gly
				335					340					345
Gln	Leu	Gln	Lys	Ile	Thr	Pro	His	Leu	Arg	Trp	Lys	Trp	Leu	Leu
				350					355					360
Asp	Gln	Ile	Phe	Gln	Glu	Asp	Phe	Ser	Glu	Glu	Glu	Glu	Val	Val
				365					370					375
Leu	Leu	Ala	Thr	Asp	Tyr	Met	Gln	Gln	Val	Ser	Gln	Leu	Ile	Arg
				380					385					390
Ser	Thr	Pro	His	Arg	Val	Leu	His	Asn	Tyr	Leu	Val	Trp	Arg	Val
				395					400					405
Val	Val	Val	Leu	Ser	Glu	His	Leu	Ser	Pro	Pro	Phe	Arg	Glu	Ala
				410					415					420

Leu His Glu Leu Ala Gln Glu Met Glu Gly Ser Asp Lys Pro Gln	425	430	435
Glu Leu Ala Arg Val Cys Leu Gly Gln Ala Asn Arg His Phe Gly	440	445	450
Met Ala Leu Gly Ala Leu Phe Val His Glu His Phe Ser Ala Ala	455	460	465
Ser Lys Ala Lys Val Gln Gln Leu Val Glu Asp Ile Lys Tyr Ile	470	475	480
Leu Gly Gln Arg Leu Glu Glu Leu Asp Trp Met Asp Ala Glu Thr	485	490	495
Arg Ala Ala Ala Arg Ala Lys Leu Gln Tyr Met Met Val Met Val	500	505	510
Gly Tyr Pro Asp Phe Leu Leu Lys Pro Asp Ala Val Asp Lys Glu	515	520	525
Tyr Glu Phe Glu Val His Glu Lys Thr Tyr Phe Lys Asn Ile Leu	530	535	540
Asn Ser Ile Pro Phe Ser Ile Gln Leu Ser Val Lys Lys Ile Arg	545	550	555
Gln Glu Val Asp Lys Ser Thr Trp Leu Leu Pro Pro Gln Ala Leu	560	565	570
Asn Ala Tyr Tyr Leu Pro Asn Lys Asn Gln Met Val Phe Pro Ala	575	580	585
Gly Ile Leu Gln Pro Thr Leu Tyr Asp Pro Asp Phe Pro Gln Ser	590	595	600
Leu Asn Tyr Gly Gly Ile Gly Thr Ile Ile Gly His Glu Leu Thr	605	610	615
His Gly Tyr Asp Asp Trp Gly Gly Gln Tyr Asp Arg Ser Gly Asn	620	625	630
Leu Leu His Trp Trp Thr Glu Ala Ser Tyr Ser Arg Phe Leu Arg	635	640	645
Lys Ala Glu Cys Ile Val Arg Leu Tyr Asp Asn Phe Thr Val Tyr	650	655	660
Asn Gln Arg Val Asn Gly Lys His Thr Leu Gly Glu Asn Ile Ala	665	670	675
Asp Met Gly Val Leu Lys Leu Ala Tyr His Ala Tyr Gln Lys Trp	680	685	690
Val Arg Glu His Gly Pro Glu His Pro Leu Pro Arg Leu Lys Tyr	695	700	705
Thr His Asp Gln Leu Phe Phe Ile Ala Phe Ala Gln Asn Trp Cys			

710	715	720
Ile Lys Arg Arg Ser Gln Ser Ile Tyr	Leu Gln Val Leu Thr Asp	
725	730	735
Lys His Ala Pro Glu His Tyr Arg Val	Leu Gly Ser Val Ser Gln	
740	745	750
Phe Glu Glu Phe Gly Arg Ala Phe His	Cys Pro Lys Asp Ser Pro	
755	760	765
Met Asn Pro Ala His Lys Cys Ser Val	Trp	
770	775	

<210> 112
 <211> 529
 <212> PRT
 <213> Homo sapien

<400> 112

Met Gly Pro Ser Cys Pro Val Phe Leu Ser Phe Thr Lys Leu Ser	
1 5 10 15	
Leu Trp Trp Leu Leu Leu Thr Pro Ala Gly Gly Glu Glu Ala Lys	
20 25 30	
Arg Pro Pro Pro Arg Ala Pro Gly Asp Pro Leu Ser Ser Pro Ser	
35 40 45	
Pro Thr Ala Leu Pro Gln Gly Gly Ser His Thr Glu Thr Glu Asp	
50 55 60	
Arg Leu Phe Lys His Leu Phe Arg Gly Tyr Asn Arg Trp Ala Arg	
65 70 75	
Pro Val Pro Asn Thr Ser Asp Val Val Ile Val Arg Phe Gly Leu	
80 85 90	
Ser Ile Ala Gln Leu Ile Asp Val Asp Glu Lys Asn Gln Met Met	
95 100 105	
Thr Thr Asn Val Trp Leu Lys Gln Glu Trp Ser Asp Tyr Lys Leu	
110 115 120	
Arg Trp Asn Pro Ala Asp Phe Gly Asn Ile Thr Ser Leu Arg Val	
125 130 135	
Pro Ser Glu Met Ile Trp Ile Pro Asp Ile Val Leu Tyr Asn Asn	
140 145 150	
Ala Asp Gly Glu Phe Ala Val Thr His Met Thr Lys Ala His Leu	
155 160 165	
Phe Ser Thr Gly Thr Val His Trp Val Pro Pro Ala Ile Tyr Lys	
170 175 180	
Ser Ser Cys Ser Ile Asp Val Thr Phe Phe Pro Phe Asp Gln Gln	
185 190 195	

Asn Cys Lys Met	Lys Phe Gly Ser Trp	Thr Tyr Asp Lys Ala Lys	200	205	210
Ile Asp Leu Glu	Gln Met Glu Gln Thr	Val Asp Leu Lys Asp Tyr	215	220	225
Trp Glu Ser Gly	Glu Trp Ala Ile Val	Asn Ala Thr Gly Thr Tyr	230	235	240
Asn Ser Lys Lys	Tyr Asp Cys Cys Ala	Glu Ile Tyr Pro Asp Val	245	250	255
Thr Tyr Ala Phe	Val Ile Arg Arg Leu	Pro Leu Phe Tyr Thr Ile	260	265	270
Asn Leu Ile Ile	Pro Cys Leu Leu Ile	Ser Cys Leu Thr Val Leu	275	280	285
Val Phe Tyr Leu	Pro Ser Asp Cys Gly	Glu Lys Ile Thr Leu Cys	290	295	300
Ile Ser Val Leu	Leu Ser Leu Thr Val	Phe Leu Leu Leu Ile Thr	305	310	315
Glu Ile Ile Pro	Ser Thr Ser Leu Val	Ile Pro Leu Ile Gly Glu	320	325	330
Tyr Leu Leu Phe	Thr Met Ile Phe Val	Thr Leu Ser Ile Val Ile	335	340	345
Thr Val Phe Val	Leu Asn Val His His	Arg Ser Pro Ser Thr His	350	355	360
Thr Met Pro His	Trp Val Arg Gly Ala	Leu Leu Gly Cys Val Pro	365	370	375
Arg Trp Leu Leu	Met Asn Arg Pro Pro	Pro Pro Val Glu Leu Cys	380	385	390
His Pro Leu Arg	Leu Lys Leu Ser Pro	Ser Tyr His Trp Leu Glu	395	400	405
Ser Asn Val Asp	Ala Glu Glu Arg Glu	Val Val Val Glu Glu Glu	410	415	420
Asp Arg Trp Ala	Cys Ala Gly His Val	Ala Pro Ser Val Gly Thr	425	430	435
Leu Cys Ser His	Gly His Leu His Ser	Gly Ala Ser Gly Pro Lys	440	445	450
Ala Glu Ala Leu	Leu Gln Glu Gly Glu	Leu Leu Leu Ser Pro His	455	460	465
Met Gln Lys Ala	Leu Glu Gly Val His	Tyr Ile Ala Asp His Leu	470	475	480
Arg Ser Glu Asp	Ala Asp Ser Ser Val	Lys Glu Asp Trp Lys Tyr			

	485		490		495
Val Ala Met Val	Ile Asp Arg Ile Phe	Leu Trp Leu Phe Ile Ile			
	500		505		510
Val Cys Phe Leu	Gly Thr Ile Gly Leu	Phe Leu Pro Pro Phe Leu			
	515		520		525
Ala Gly Met Ile					
<210> 113					
<211> 202					
<212> PRT					
<213> Homo sapien					
<400> 113					
Met Leu Pro Pro	Gly Thr Ala Thr Leu	Leu Thr Leu Leu Ala			
1	5	10			15
Ala Gly Ser Leu	Gly Gln Lys Pro Gln	Arg Pro Arg Arg Pro Ala			
	20	25			30
Ser Pro Ile Ser	Thr Ile Gln Pro Lys	Ala Asn Phe Asp Ala Gln			
	35	40			45
Gln Phe Ala Gly	Thr Trp Leu Leu Val	Ala Val Gly Ser Ala Cys			
	50	55			60
Arg Phe Leu Gln	Glu Gln Gly His Arg	Ala Glu Ala Thr Thr Leu			
	65	70			75
His Val Ala Pro	Gln Gly Thr Ala Met	Ala Val Ser Thr Phe Arg			
	80	85			90
Lys Leu Asp Gly	Ile Cys Trp Gln Val	Arg Gln Leu Tyr Gly Asp			
	95	100			105
Thr Gly Val Leu	Gly Arg Phe Leu Leu	Gln Ala Arg Gly Ala Arg			
	110	115			120
Gly Ala Val Asn	Val Val Val Ala Glu	Thr Asp Tyr Gln Ser Phe			
	125	130			135
Ala Val Leu Tyr	Leu Glu Arg Ala Gly	Gln Leu Ser Val Lys Leu			
	140	145			150
Tyr Ala Arg Ser	Leu Pro Val Ser Asp	Ser Val Leu Ser Gly Phe			
	155	160			165
Glu Gln Arg Val	Gln Glu Ala His Leu	Thr Glu Asp Gln Ile Phe			
	170	175			180
Tyr Phe Pro Lys	Tyr Gly Phe Cys Glu	Ala Ala Asp Gln Phe His			
	185	190			195
Val Leu Asp Glu	Val Arg Arg				
	200				

<210> 114
 <211> 267
 <212> PRT
 <213> Homo sapien

<400> 114

Met	Arg	Leu	Thr	Val	Leu	Cys	Ala	Val	Cys	Leu	Leu	Pro	Gly	Ser	
1				5					10					15	
Leu	Ala	Leu	Pro	Leu	Pro	Gln	Glu	Ala	Gly	Gly	Met	Ser	Glu	Leu	
				20					25					30	
Gln	Trp	Glu	Gln	Ala	Gln	Asp	Tyr	Leu	Lys	Arg	Phe	Tyr	Leu	Tyr	
				35					40					45	
Asp	Ser	Glu	Thr	Lys	Asn	Ala	Asn	Ser	Leu	Glu	Ala	Lys	Leu	Lys	
				50					55					60	
Glu	Met	Gln	Lys	Phe	Phe	Gly	Leu	Pro	Ile	Thr	Gly	Met	Leu	Asn	
				65					70					75	
Ser	Arg	Val	Ile	Glu	Ile	Met	Gln	Lys	Pro	Arg	Cys	Gly	Val	Pro	
				80					85					90	
Asp	Val	Ala	Glu	Tyr	Ser	Leu	Phe	Pro	Asn	Ser	Pro	Lys	Trp	Thr	
				95					100					105	
Ser	Lys	Val	Val	Thr	Tyr	Arg	Ile	Val	Ser	Tyr	Thr	Arg	Asp	Leu	
				110					115					120	
Pro	His	Ile	Thr	Val	Asp	Arg	Leu	Val	Ser	Lys	Ala	Leu	Asn	Met	
				125					130					135	
Trp	Gly	Lys	Glu	Ile	Pro	Leu	His	Phe	Arg	Lys	Val	Val	Trp	Gly	
				140					145					150	
Thr	Ala	Asp	Ile	Met	Ile	Gly	Phe	Ala	Arg	Gly	Ala	His	Gly	Asp	
				155					160					165	
Ser	Tyr	Pro	Phe	Asp	Gly	Pro	Gly	Asn	Thr	Leu	Ala	His	Ala	Phe	
				170					175					180	
Ala	Pro	Gly	Thr	Gly	Leu	Gly	Gly	Asp	Ala	His	Phe	Asp	Glu	Asp	
				185					190					195	
Glu	Arg	Trp	Thr	Asp	Gly	Ser	Ser	Leu	Gly	Ile	Asn	Phe	Leu	Tyr	
				200					205					210	
Ala	Ala	Thr	His	Glu	Leu	Gly	His	Ser	Leu	Gly	Met	Gly	His	Ser	
				215					220					225	
Ser	Asp	Pro	Asn	Ala	Val	Met	Tyr	Pro	Thr	Tyr	Gly	Asn	Gly	Asp	
				230					235					240	
Pro	Gln	Asn	Phe	Lys	Leu	Ser	Gln	Asp	Asp	Ile	Lys	Gly	Ile	Gln	
				245					250					255	
Lys	Leu	Tyr	Gly	Lys	Arg	Ser	Asn	Ser	Arg	Lys	Lys				

<210> 115
 <211> 314
 <212> PRT
 <213> Homo sapien

<400> 115

Met	Ala	Pro	Pro	Gln	Val	Leu	Ala	Phe	Gly	Leu	Leu	Leu	Ala	Ala	1	5	10	15
Ala	Thr	Ala	Thr	Phe	Ala	Ala	Ala	Gln	Glu	Glu	Cys	Val	Cys	Glu	20	25	30	
Asn	Tyr	Lys	Leu	Ala	Val	Asn	Cys	Phe	Val	Asn	Asn	Asn	Arg	Gln	35	40	45	
Cys	Gln	Cys	Thr	Ser	Val	Gly	Ala	Gln	Asn	Thr	Val	Ile	Cys	Ser	50	55	60	
Lys	Leu	Ala	Ala	Lys	Cys	Leu	Val	Met	Lys	Ala	Glu	Met	Asn	Gly	65	70	75	
Ser	Lys	Leu	Gly	Arg	Arg	Ala	Lys	Pro	Glu	Gly	Ala	Leu	Gln	Asn	80	85	90	
Asn	Asp	Gly	Leu	Tyr	Asp	Pro	Asp	Cys	Asp	Glu	Ser	Gly	Leu	Phe	95	100	105	
Lys	Ala	Lys	Gln	Cys	Asn	Gly	Thr	Ser	Thr	Cys	Trp	Cys	Val	Asn	110	115	120	
Thr	Ala	Gly	Val	Arg	Arg	Thr	Asp	Lys	Asp	Thr	Glu	Ile	Thr	Cys	125	130	135	
Ser	Glu	Arg	Val	Arg	Thr	Tyr	Trp	Ile	Ile	Ile	Glu	Leu	Lys	His	140	145	150	
Lys	Ala	Arg	Glu	Lys	Pro	Tyr	Asp	Ser	Lys	Ser	Leu	Arg	Thr	Ala	155	160	165	
Leu	Gln	Lys	Glu	Ile	Thr	Thr	Arg	Tyr	Gln	Leu	Asp	Pro	Lys	Phe	170	175	180	
Ile	Thr	Ser	Ile	Leu	Tyr	Glu	Asn	Asn	Val	Ile	Thr	Ile	Asp	Leu	185	190	195	
Val	Gln	Asn	Ser	Ser	Gln	Lys	Thr	Gln	Asn	Asp	Val	Asp	Ile	Ala	200	205	210	
Asp	Val	Ala	Tyr	Tyr	Phe	Glu	Lys	Asp	Val	Lys	Gly	Glu	Ser	Leu	215	220	225	
Phe	His	Ser	Lys	Lys	Met	Asp	Leu	Thr	Val	Asn	Gly	Glu	Gln	Leu	230	235	240	
Asp	Leu	Asp	Pro	Gly	Gln	Thr	Leu	Ile	Tyr	Tyr	Val	Asp	Glu	Lys	245	250	255	

Ala	Pro	Glu	Phe	Ser	Met	Gln	Gly	Leu	Lys	Ala	Gly	Val	Ile	Ala	
				260					265					270	
Val	Ile	Val	Val	Val	Val	Met	Ala	Val	Val	Ala	Gly	Ile	Val	Val	
				275					280					285	
Leu	Val	Ile	Ser	Arg	Lys	Lys	Arg	Met	Ala	Lys	Tyr	Glu	Lys	Ala	
				290					295					300	
Glu	Ile	Lys	Glu	Met	Gly	Glu	Met	His	Arg	Glu	Leu	Asn	Ala		
				305					310						

<210> 116
 <211> 130
 <212> PRT
 <213> Homo sapien

<400> 116															
Met	Arg	Gln	Lys	Ala	Val	Ser	Val	Phe	Leu	Cys	Tyr	Leu	Leu	Leu	
1				5					10					15	
Phe	Thr	Cys	Ser	Gly	Val	Glu	Ala	Gly	Lys	Lys	Lys	Cys	Ser	Glu	
				20					25					30	
Ser	Ser	Asp	Ser	Gly	Ser	Gly	Phe	Trp	Lys	Ala	Leu	Thr	Phe	Met	
				35					40					45	
Ala	Val	Gly	Gly	Gly	Leu	Ala	Val	Ala	Gly	Leu	Pro	Ala	Leu	Gly	
				50					55					60	
Phe	Thr	Gly	Ala	Gly	Ile	Ala	Ala	Asn	Ser	Val	Ala	Ala	Ser	Leu	
				65					70					75	
Met	Ser	Trp	Ser	Ala	Ile	Leu	Asn	Gly	Gly	Gly	Val	Pro	Ala	Gly	
				80					85					90	
Gly	Leu	Val	Ala	Thr	Leu	Gln	Ser	Leu	Gly	Ala	Gly	Gly	Ser	Ser	
				95					100					105	
Val	Val	Ile	Gly	Asn	Ile	Gly	Ala	Leu	Met	Arg	Tyr	Ala	Thr	His	
				110					115					120	
Lys	Tyr	Leu	Asp	Ser	Glu	Glu	Asp	Glu	Glu						
				125					130						

<210> 117
 <211> 799
 <212> PRT
 <213> Homo sapien

<400> 117															
Met	Pro	Arg	Ala	Pro	Ala	Pro	Leu	Tyr	Ala	Cys	Leu	Leu	Gly	Leu	
1				5					10					15	
Cys	Ala	Leu	Leu	Pro	Arg	Leu	Ala	Gly	Leu	Asn	Ile	Cys	Thr	Ser	
				20					25					30	
Gly	Ser	Ala	Thr	Ser	Cys	Glu	Glu	Cys	Leu	Leu	Ile	His	Pro	Lys	

	35	40	45
Cys Ala Trp Cys Ser Lys Glu Asp Phe Gly Ser Pro Arg Ser Ile	50	55	60
Thr Ser Arg Cys Asp Leu Arg Ala Asn Leu Val Lys Asn Gly Cys	65	70	75
Gly Gly Glu Ile Glu Ser Pro Ala Ser Ser Phe His Val Leu Arg	80	85	90
Ser Leu Pro Leu Ser Ser Lys Gly Ser Gly Ser Ala Gly Trp Asp	95	100	105
Val Ile Gln Met Thr Pro Gln Glu Ile Ala Val Asn Leu Arg Pro	110	115	120
Gly Asp Lys Thr Thr Phe Gln Leu Gln Val Arg Gln Val Glu Asp	125	130	135
Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu Ser Leu Ser Met	140	145	150
Lys Asp Asp Leu Asp Asn Ile Arg Ser Leu Gly Thr Lys Leu Ala	155	160	165
Glu Glu Met Arg Lys Leu Thr Ser Asn Phe Arg Leu Gly Phe Gly	170	175	180
Ser Phe Val Asp Lys Asp Ile Ser Pro Phe Ser Tyr Thr Ala Pro	185	190	195
Arg Tyr Gln Thr Asn Pro Cys Ile Gly Tyr Lys Leu Phe Pro Asn	200	205	210
Cys Val Pro Ser Phe Gly Phe Arg His Leu Leu Pro Leu Thr Asp	215	220	225
Arg Val Asp Ser Phe Asn Glu Glu Val Arg Lys Gln Arg Val Ser	230	235	240
Arg Asn Arg Asp Ala Pro Glu Gly Gly Phe Asp Ala Val Leu Gln	245	250	255
Ala Ala Val Cys Lys Glu Lys Ile Gly Trp Arg Lys Asp Ala Leu	260	265	270
His Leu Leu Val Phe Thr Thr Asp Asp Val Pro His Ile Ala Leu	275	280	285
Asp Gly Lys Leu Gly Gly Leu Val Gln Pro His Asp Gly Gln Cys	290	295	300
His Leu Asn Glu Ala Asn Glu Tyr Thr Ala Ser Asn Gln Met Asp	305	310	315
Tyr Pro Ser Leu Ala Leu Leu Gly Glu Lys Leu Ala Glu Asn Asn	320	325	330

Ile Asn Leu Ile Phe Ala Val Thr Lys Asn His Tyr Met Leu Tyr	335	340	345
Lys Asn Phe Thr Ala Leu Ile Pro Gly Thr Thr Val Glu Ile Leu	350	355	360
Asp Gly Asp Ser Lys Asn Ile Ile Gln Leu Ile Ile Asn Ala Tyr	365	370	375
Asn Ser Ile Arg Ser Lys Val Glu Leu Ser Val Trp Asp Gln Pro	380	385	390
Glu Asp Leu Asn Leu Phe Phe Thr Ala Thr Cys Gln Asp Gly Val	395	400	405
Ser Tyr Pro Gly Gln Arg Lys Cys Glu Gly Leu Lys Ile Gly Asp	410	415	420
Thr Ala Ser Phe Glu Val Ser Leu Glu Ala Arg Ser Cys Pro Ser	425	430	435
Arg His Thr Glu His Val Phe Ala Leu Arg Pro Val Gly Phe Arg	440	445	450
Asp Ser Leu Glu Val Gly Val Thr Tyr Asn Cys Thr Cys Gly Cys	455	460	465
Ser Val Gly Leu Glu Pro Asn Ser Ala Arg Cys Asn Gly Ser Gly	470	475	480
Thr Tyr Val Cys Gly Leu Cys Glu Cys Ser Pro Gly Tyr Leu Gly	485	490	495
Thr Arg Cys Glu Cys Gln Asp Gly Glu Asn Gln Ser Val Tyr Gln	500	505	510
Asn Leu Cys Arg Glu Ala Glu Gly Lys Pro Leu Cys Ser Gly Arg	515	520	525
Gly Asp Cys Ser Cys Asn Gln Cys Ser Cys Phe Glu Ser Glu Phe	530	535	540
Gly Lys Ile Tyr Gly Pro Phe Cys Glu Cys Asp Asn Phe Ser Cys	545	550	555
Ala Arg Asn Lys Gly Val Leu Cys Ser Gly His Gly Glu Cys His	560	565	570
Cys Gly Glu Cys Lys Cys His Ala Gly Tyr Ile Gly Asp Asn Cys	575	580	585
Asn Cys Ser Thr Asp Ile Ser Thr Cys Arg Gly Arg Asp Gly Gln	590	595	600
Ile Cys Ser Glu Arg Gly His Cys Leu Cys Gly Gln Cys Gln Cys	605	610	615
Thr Glu Pro Gly Ala Phe Gly Glu Met Cys Glu Lys Cys Pro Thr			

620	625	630
Cys Pro Asp Ala Cys Ser Thr Lys Arg Asp Cys Val Glu Cys Leu		
635	640	645
Leu Leu His Ser Gly Lys Pro Asp Asn Gln Thr Cys His Ser Leu		
650	655	660
Cys Arg Asp Glu Val Ile Thr Trp Val Asp Thr Ile Val Lys Asp		
665	670	675
Asp Gln Glu Ala Val Leu Cys Phe Tyr Lys Thr Ala Lys Asp Cys		
680	685	690
Val Met Met Phe Thr Tyr Val Glu Leu Pro Ser Gly Lys Ser Asn		
695	700	705
Leu Thr Val Leu Arg Glu Pro Glu Cys Gly Asn Thr Pro Asn Ala		
710	715	720
Met Thr Ile Leu Leu Ala Val Val Gly Ser Ile Leu Leu Val Gly		
725	730	735
Leu Ala Leu Leu Ala Ile Trp Lys Leu Leu Val Thr Ile His Asp		
740	745	750
Arg Arg Glu Phe Ala Lys Phe Gln Ser Glu Arg Ser Arg Ala Arg		
755	760	765
Tyr Glu Met Ala Ser Asn Pro Leu Tyr Arg Lys Pro Ile Ser Thr		
770	775	780
His Thr Val Asp Phe Thr Phe Asn Lys Phe Asn Lys Ser Tyr Asn		
785	790	795

Gly Thr Val Asp

<210> 118
 <211> 680
 <212> PRT
 <213> Homo sapien

<400> 118

Met	Leu	Pro	Gln	Ile	Pro	Phe	Leu	Leu	Leu	Val	Ser	Leu	Asn	Leu
1				5					10					15
Val	His	Gly	Val	Phe	Tyr	Ala	Glu	Arg	Tyr	Gln	Met	Pro	Thr	Gly
			20						25					30
Ile	Lys	Gly	Pro	Leu	Pro	Asn	Thr	Lys	Thr	Gln	Phe	Phe	Ile	Pro
			35						40					45
Tyr	Thr	Ile	Lys	Ser	Lys	Gly	Ile	Ala	Val	Arg	Gly	Glu	Gln	Gly
			50						55					60
Thr	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	His	Pro	Gly
			65						70					75

Pro Ser Gly Pro	Pro Gly Lys Pro Gly Tyr Gly Ser Pro Gly Leu	80	85	90
Gln Gly Glu Pro	Gly Leu Pro Gly Pro Pro Gly Pro Ser Ala Val	95	100	105
Gly Lys Pro Gly	Val Pro Gly Leu Pro Gly Lys Pro Gly Glu Arg	110	115	120
Gly Pro Tyr Gly	Pro Lys Gly Asp Val Gly Pro Ala Gly Leu Pro	125	130	135
Gly Pro Arg Gly	Pro Pro Gly Pro Pro Gly Ile Pro Gly Pro Ala	140	145	150
Gly Ile Ser Val	Pro Gly Lys Pro Gly Gln Gln Gly Pro Thr Gly	155	160	165
Ala Pro Gly Pro	Arg Gly Phe Pro Gly Glu Lys Gly Ala Pro Gly	170	175	180
Val Pro Gly Met	Asn Gly Gln Lys Gly Glu Met Gly Tyr Gly Ala	185	190	195
Pro Gly Arg Pro	Gly Glu Arg Gly Leu Pro Gly Pro Gln Gly Pro	200	205	210
Thr Gly Pro Ser	Gly Pro Pro Gly Val Gly Lys Arg Gly Glu Asn	215	220	225
Gly Val Pro Gly	Gln Pro Gly Ile Lys Gly Asp Arg Gly Phe Pro	230	235	240
Gly Glu Met Gly	Pro Ile Gly Pro Pro Gly Pro Gln Gly Pro Pro	245	250	255
Gly Glu Arg Gly	Pro Glu Gly Ile Gly Lys Pro Gly Ala Ala Gly	260	265	270
Ala Pro Gly Gln	Pro Gly Ile Pro Gly Thr Lys Gly Leu Pro Gly	275	280	285
Ala Pro Gly Ile	Ala Gly Pro Pro Gly Pro Pro Gly Phe Gly Lys	290	295	300
Pro Gly Leu Pro	Gly Leu Lys Gly Glu Arg Gly Pro Ala Gly Leu	305	310	315
Pro Gly Gly Pro	Gly Ala Lys Gly Glu Gln Gly Pro Ala Gly Leu	320	325	330
Pro Gly Lys Pro	Gly Leu Thr Gly Pro Pro Gly Asn Met Gly Pro	335	340	345
Gln Gly Pro Lys	Gly Ile Pro Gly Ser His Gly Leu Pro Gly Pro	350	355	360
Lys Gly Glu Thr	Gly Pro Ala Gly Pro Ala Gly Tyr Pro Gly Ala			

365										370					375				
Lys	Gly	Glu	Arg	Gly	Ser	Pro	Gly	Ser	Asp	Gly	Lys	Pro	Gly	Tyr					
				380					385					390					
Pro	Gly	Lys	Pro	Gly	Leu	Asp	Gly	Pro	Lys	Gly	Asn	Pro	Gly	Leu					
				395					400					405					
Pro	Gly	Pro	Lys	Gly	Asp	Pro	Gly	Val	Gly	Gly	Pro	Pro	Gly	Leu					
				410					415					420					
Pro	Gly	Pro	Val	Gly	Pro	Ala	Gly	Ala	Lys	Gly	Met	Pro	Gly	His					
				425					430					435					
Asn	Gly	Glu	Ala	Gly	Pro	Arg	Gly	Ala	Pro	Gly	Ile	Pro	Gly	Thr					
				440					445					450					
Arg	Gly	Pro	Ile	Gly	Pro	Pro	Gly	Ile	Pro	Gly	Phe	Pro	Gly	Ser					
				455					460					465					
Lys	Gly	Asp	Pro	Gly	Ser	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ile					
				470					475					480					
Ala	Thr	Lys	Gly	Leu	Asn	Gly	Pro	Thr	Gly	Pro	Pro	Gly	Pro	Pro					
				485					490					495					
Gly	Pro	Arg	Gly	His	Ser	Gly	Glu	Pro	Gly	Leu	Pro	Gly	Pro	Pro					
				500					505					510					
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Gln	Ala	Val	Met	Pro	Glu	Gly	Phe					
				515					520					525					
Ile	Lys	Ala	Gly	Gln	Arg	Pro	Ser	Leu	Ser	Gly	Thr	Pro	Leu	Val					
				530					535					540					
Ser	Ala	Asn	Gln	Gly	Val	Thr	Gly	Met	Pro	Val	Ser	Ala	Phe	Thr					
				545					550					555					
Val	Ile	Leu	Ser	Lys	Ala	Tyr	Pro	Ala	Ile	Gly	Thr	Pro	Ile	Pro					
				560					565					570					
Phe	Asp	Lys	Ile	Leu	Tyr	Asn	Arg	Gln	Gln	His	Tyr	Asp	Pro	Arg					
				575					580					585					
Thr	Gly	Ile	Phe	Thr	Cys	Gln	Ile	Pro	Gly	Ile	Tyr	Tyr	Phe	Ser					
				590					595					600					
Tyr	His	Val	His	Val	Lys	Gly	Thr	His	Val	Trp	Val	Gly	Leu	Tyr					
				605					610					615					
Lys	Asn	Gly	Thr	Pro	Val	Met	Tyr	Thr	Tyr	Asp	Glu	Tyr	Thr	Lys					
				620					625					630					
Gly	Tyr	Leu	Asp	Gln	Ala	Ser	Gly	Ser	Ala	Ile	Ile	Asp	Leu	Thr					
				635					640					645					
Glu	Asn	Asp	Gln	Val	Trp	Leu	Gln	Leu	Pro	Asn	Ala	Glu	Ser	Asn					
				650					655					660					

Gly Leu Tyr Ser Ser Glu Tyr Val His Ser Ser Phe Ser Gly Phe
665 670 675

Leu Val Ala Pro Met
680

<210> 119

<211> 508

<212> PRT

<213> Homo sapien

<400> 119

Met Leu Leu Trp Ser Leu Leu Val Ile Phe Asp Ala Val Thr Glu
1 5 10 15

Gln Ala Asp Ser Leu Thr Leu Val Ala Pro Ser Ser Val Phe Glu
20 25 30

Gly Asp Ser Ile Val Leu Lys Cys Gln Gly Glu Gln Asn Trp Lys
35 40 45

Ile Gln Lys Met Ala Tyr His Lys Asp Asn Lys Glu Leu Ser Val
50 55 60

Phe Lys Lys Phe Ser Asp Phe Leu Ile Gln Ser Ala Val Leu Ser
65 70 75

Asp Ser Gly Asn Tyr Phe Cys Ser Thr Lys Gly Gln Leu Phe Leu
80 85 90

Trp Asp Lys Thr Ser Asn Ile Val Lys Ile Lys Val Gln Glu Leu
95 100 105

Phe Gln Arg Pro Val Leu Thr Ala Ser Ser Phe Gln Pro Ile Glu
110 115 120

Gly Gly Pro Val Ser Leu Lys Cys Glu Thr Arg Leu Ser Pro Gln
125 130 135

Arg Leu Asp Val Gln Leu Gln Phe Cys Phe Phe Arg Glu Asn Gln
140 145 150

Val Leu Gly Ser Gly Trp Ser Ser Ser Pro Glu Leu Gln Ile Ser
155 160 165

Ala Val Trp Ser Glu Asp Thr Gly Ser Tyr Trp Cys Lys Ala Glu
170 175 180

Thr Val Thr His Arg Ile Arg Lys Gln Ser Leu Gln Ser Gln Ile
185 190 195

His Val Gln Arg Ile Pro Ile Ser Asn Val Ser Leu Glu Ile Arg
200 205 210

Ala Pro Gly Gly Gln Val Thr Glu Gly Gln Lys Leu Ile Leu Leu
215 220 225

Cys Ser Val Ala Gly Gly Thr Gly Asn Val Thr Phe Ser Trp Tyr

230	235	240
Arg Glu Ala Thr Gly Thr Ser Met Gly Lys Lys Thr Gln Arg Ser		
245	250	255
Leu Ser Ala Glu Leu Glu Ile Pro Ala Val Lys Glu Ser Asp Ala		
260	265	270
Gly Lys Tyr Tyr Cys Arg Ala Asp Asn Gly His Val Pro Ile Gln		
275	280	285
Ser Lys Val Val Asn Ile Pro Val Arg Ile Pro Val Ser Arg Pro		
290	295	300
Val Leu Thr Leu Arg Ser Pro Gly Ala Gln Ala Ala Val Gly Asp		
305	310	315
Leu Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Pro Pro Ile		
320	325	330
Leu Tyr Gln Phe Tyr His Glu Asp Val Thr Leu Gly Asn Ser Ser		
335	340	345
Ala Pro Ser Gly Gly Gly Ala Ser Phe Asn Leu Ser Leu Thr Ala		
350	355	360
Glu His Ser Gly Asn Tyr Ser Cys Glu Ala Asn Asn Gly Leu Gly		
365	370	375
Ala Gln Cys Ser Glu Ala Val Pro Val Ser Ile Ser Gly Pro Asp		
380	385	390
Gly Tyr Arg Arg Asp Leu Met Thr Ala Gly Val Leu Trp Gly Leu		
395	400	405
Phe Gly Val Leu Gly Phe Thr Gly Val Ala Leu Leu Leu Tyr Ala		
410	415	420
Leu Phe His Lys Ile Ser Gly Glu Ser Ser Ala Thr Asn Glu Pro		
425	430	435
Arg Gly Ala Ser Arg Pro Asn Pro Gln Glu Phe Thr Tyr Ser Ser		
440	445	450
Pro Thr Pro Asp Met Glu Glu Leu Gln Pro Val Tyr Val Asn Val		
455	460	465
Gly Ser Val Asp Val Asp Val Val Tyr Ser Gln Val Trp Ser Met		
470	475	480
Gln Gln Pro Glu Ser Ser Ala Asn Ile Arg Thr Leu Leu Glu Asn		
485	490	495
Lys Asp Ser Gln Val Ile Tyr Ser Ser Val Lys Lys Ser		
500	505	

<210> 120
<211> 386

<212> PRT

<213> Homo sapien

<400> 120

Leu	Arg	Gln	Gly	Leu	Ser	Gly	Gly	Gly	Gly	Ser	Leu	Ala	Ser	Gly	
1				5					10					15	
Gly	Pro	Gly	Pro	Gly	His	Ala	Ser	Leu	Ser	Gln	Arg	Leu	Arg	Leu	
				20					25					30	
Tyr	Leu	Ala	Asp	Ser	Trp	Asn	Gln	Cys	Asp	Leu	Val	Ala	Leu	Thr	
				35					40					45	
Cys	Phe	Leu	Leu	Gly	Val	Gly	Cys	Arg	Leu	Thr	Pro	Gly	Leu	Tyr	
				50					55					60	
His	Leu	Gly	Arg	Thr	Val	Leu	Cys	Ile	Asp	Phe	Met	Val	Phe	Thr	
				65					70					75	
Val	Arg	Leu	Leu	His	Ile	Phe	Thr	Val	Asn	Lys	Gln	Leu	Gly	Pro	
				80					85					90	
Lys	Ile	Val	Ile	Val	Ser	Lys	Met	Met	Lys	Asp	Val	Phe	Phe	Phe	
				95					100					105	
Leu	Phe	Phe	Leu	Gly	Val	Trp	Leu	Val	Ala	Tyr	Gly	Val	Ala	Thr	
				110					115					120	
Glu	Gly	Leu	Leu	Arg	Pro	Arg	Asp	Ser	Asp	Phe	Pro	Ser	Ile	Leu	
				125					130					135	
Arg	Arg	Val	Phe	Tyr	Arg	Pro	Tyr	Leu	Gln	Ile	Phe	Gly	Gln	Ile	
				140					145					150	
Pro	Gln	Glu	Asp	Met	Asp	Val	Ala	Leu	Met	Glu	His	Ser	Asn	Cys	
				155					160					165	
Ser	Ser	Glu	Pro	Gly	Phe	Trp	Ala	His	Pro	Pro	Gly	Ala	Gln	Ala	
				170					175					180	
Gly	Thr	Cys	Val	Ser	Gln	Tyr	Ala	Asn	Trp	Leu	Val	Val	Leu	Leu	
				185					190					195	
Leu	Val	Ile	Phe	Leu	Leu	Val	Ala	Asn	Ile	Leu	Leu	Val	Asn	Leu	
				200					205					210	
Leu	Ile	Ala	Met	Phe	Ser	Tyr	Thr	Phe	Gly	Lys	Val	Gln	Gly	Asn	
				215					220					225	
Ser	Asp	Leu	Tyr	Trp	Lys	Ala	Gln	Arg	Tyr	Arg	Leu	Ile	Arg	Glu	
				230					235					240	
Phe	His	Ser	Arg	Pro	Ala	Leu	Ala	Pro	Pro	Phe	Ile	Val	Ile	Ser	
				245					250					255	
His	Leu	Arg	Leu	Leu	Leu	Arg	Gln	Leu	Cys	Arg	Arg	Pro	Arg	Ser	
				260					265					270	

Pro	Gln	Pro	Ser	Ser	Pro	Ala	Leu	Glu	His	Phe	Arg	Val	Tyr	Leu	
				275					280					285	
Ser	Lys	Glu	Ala	Glu	Arg	Lys	Leu	Leu	Thr	Trp	Glu	Ser	Val	His	
				290					295					300	
Lys	Glu	Asn	Phe	Leu	Leu	Ala	Arg	Ala	Arg	Asp	Lys	Arg	Glu	Ser	
				305					310					315	
Asp	Ser	Glu	Arg	Leu	Lys	Arg	Thr	Ser	Gln	Lys	Val	Asp	Leu	Ala	
				320					325					330	
Leu	Lys	Gln	Leu	Gly	His	Ile	Arg	Glu	Tyr	Glu	Gln	Arg	Leu	Lys	
				335					340					345	
Val	Leu	Glu	Arg	Glu	Val	Gln	Gln	Cys	Ser	Arg	Val	Leu	Gly	Trp	
				350					355					360	
Val	Ala	Glu	Ala	Leu	Ser	Arg	Ser	Ala	Leu	Leu	Pro	Pro	Gly	Gly	
				365					370					375	
Pro	Pro	Pro	Pro	Asp	Leu	Pro	Gly	Ser	Lys	Asp					
				380					385						

<210> 121
 <211> 529
 <212> PRT
 <213> Homo sapien

<400> 121															
Met	Gly	Pro	Ser	Cys	Pro	Val	Phe	Leu	Ser	Phe	Thr	Lys	Leu	Ser	
1				5					10					15	
Leu	Trp	Trp	Leu	Leu	Leu	Thr	Pro	Ala	Gly	Gly	Glu	Glu	Ala	Lys	
				20					25					30	
Arg	Pro	Pro	Pro	Arg	Ala	Pro	Gly	Asp	Pro	Leu	Ser	Ser	Pro	Ser	
				35					40					45	
Pro	Thr	Ala	Leu	Pro	Gln	Gly	Gly	Ser	His	Thr	Glu	Thr	Glu	Asp	
				50					55					60	
Arg	Leu	Phe	Lys	His	Leu	Phe	Arg	Gly	Tyr	Asn	Arg	Trp	Ala	Arg	
				65					70					75	
Pro	Val	Pro	Asn	Thr	Ser	Asp	Val	Val	Ile	Val	Arg	Phe	Gly	Leu	
				80					85					90	
Ser	Ile	Ala	Gln	Leu	Ile	Asp	Val	Asp	Glu	Lys	Asn	Gln	Met	Met	
				95					100					105	
Thr	Thr	Asn	Val	Trp	Leu	Lys	Gln	Glu	Trp	Ser	Asp	Tyr	Lys	Leu	
				110					115					120	
Arg	Trp	Asn	Pro	Ala	Asp	Phe	Gly	Asn	Ile	Thr	Ser	Leu	Arg	Val	
				125					130					135	
Pro	Ser	Glu	Met	Ile	Trp	Ile	Pro	Asp	Ile	Val	Leu	Tyr	Asn	Asn	

140	145	150
Ala Asp Gly Glu Phe Ala Val Thr His Met Thr Lys Ala His Leu		
155	160	165
Phe Ser Thr Gly Thr Val His Trp Val Pro Pro Ala Ile Tyr Lys		
170	175	180
Ser Ser Cys Ser Ile Asp Val Thr Phe Phe Pro Phe Asp Gln Gln		
185	190	195
Asn Cys Lys Met Lys Phe Gly Ser Trp Thr Tyr Asp Lys Ala Lys		
200	205	210
Ile Asp Leu Glu Gln Met Glu Gln Thr Val Asp Leu Lys Asp Tyr		
215	220	225
Trp Glu Ser Gly Glu Trp Ala Ile Val Asn Ala Thr Gly Thr Tyr		
230	235	240
Asn Ser Lys Lys Tyr Asp Cys Cys Ala Glu Ile Tyr Pro Asp Val		
245	250	255
Thr Tyr Ala Phe Val Ile Arg Arg Leu Pro Leu Phe Tyr Thr Ile		
260	265	270
Asn Leu Ile Ile Pro Cys Leu Leu Ile Ser Cys Leu Thr Val Leu		
275	280	285
Val Phe Tyr Leu Pro Ser Asp Cys Gly Glu Lys Ile Thr Leu Cys		
290	295	300
Ile Ser Val Leu Leu Ser Leu Thr Val Phe Leu Leu Leu Ile Thr		
305	310	315
Glu Ile Ile Pro Ser Thr Ser Leu Val Ile Pro Leu Ile Gly Glu		
320	325	330
Tyr Leu Leu Phe Thr Met Ile Phe Val Thr Leu Ser Ile Val Ile		
335	340	345
Thr Val Phe Val Leu Asn Val His His Arg Ser Pro Ser Thr His		
350	355	360
Thr Met Pro His Trp Val Arg Gly Ala Leu Leu Gly Cys Val Pro		
365	370	375
Arg Trp Leu Leu Met Asn Arg Pro Pro Pro Pro Val Glu Leu Cys		
380	385	390
His Pro Leu Arg Leu Lys Leu Ser Pro Ser Tyr His Trp Leu Glu		
395	400	405
Ser Asn Val Asp Ala Glu Glu Arg Glu Val Val Val Glu Glu Glu		
410	415	420
Asp Arg Trp Ala Cys Ala Gly His Val Ala Pro Ser Val Gly Thr		
425	430	435

Leu Cys Ser His Gly His Leu His Ser Gly Ala Ser Gly Pro Lys
 440 445 450
 Ala Glu Ala Leu Leu Gln Glu Gly Glu Leu Leu Leu Ser Pro His
 455 460 465
 Met Gln Lys Ala Leu Glu Gly Val His Tyr Ile Ala Asp His Leu
 470 475 480
 Arg Ser Glu Asp Ala Asp Ser Ser Val Lys Glu Asp Trp Lys Tyr
 485 490 495
 Val Ala Met Val Ile Asp Arg Ile Phe Leu Trp Leu Phe Ile Ile
 500 505 510
 Val Cys Phe Leu Gly Thr Ile Gly Leu Phe Leu Pro Pro Phe Leu
 515 520 525
 Ala Gly Met Ile

<210> 122
 <211> 339
 <212> PRT
 <213> Homo sapien

<400> 122
 Met Glu Ser Arg Lys Asp Ile Thr Asn Gln Glu Glu Leu Trp Lys
 1 5 10 15
 Met Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys
 20 25 30
 Asp Thr Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His
 35 40 45
 Leu His Gln Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu
 50 55 60
 Leu Gln His Thr Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile
 65 70 75
 Lys Ile Ala Ala Ile Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu
 80 85 90
 Leu Arg Glu Val Ile His Pro Leu Ala Thr Ser His Gln Gln Tyr
 95 100 105
 Phe Tyr Lys Ile Pro Ile Leu Val Ile Asn Lys Val Leu Pro Met
 110 115 120
 Val Ser Ile Thr Leu Leu Ala Leu Val Tyr Leu Pro Gly Val Ile
 125 130 135
 Ala Ala Ile Val Gln Leu His Asn Gly Thr Lys Tyr Lys Lys Phe
 140 145 150
 Pro His Trp Leu Asp Lys Trp Met Leu Thr Arg Lys Gln Phe Gly

155	160	165
Leu Leu Ser Phe Phe Phe Ala Val Leu His Ala Ile Tyr Ser Leu		
170	175	180
Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu Leu Asn Trp		
185	190	195
Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp Ile Glu		
200	205	210
His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile Val		
215	220	225
Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser		
230	235	240
Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser		
245	250	255
Lys Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu		
260	265	270
Ile Phe Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp		
275	280	285
Tyr Thr Pro Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val		
290	295	300
Val Leu Ile Phe Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys		
305	310	315
Lys Ile Leu Lys Ile Arg His Gly Trp Glu Asp Val Thr Lys Ile		
320	325	330
Asn Lys Thr Glu Ile Cys Ser Gln Leu		
335		

<210> 123
 <211> 1127
 <212> PRT
 <213> Homo sapien

<400> 123
 Met His Asn Thr Thr Glu Lys Pro Thr Asp Ala Tyr Gly Glu Leu
 1 5 10 15
 Asp Phe Thr Gly Ala Gly Arg Lys His Ser Asn Phe Leu Arg Leu
 20 25 30
 Ser Asp Arg Thr Asp Pro Ala Ala Val Tyr Ser Leu Val Thr Arg
 35 40 45
 Thr Trp Gly Phe Arg Ala Pro Asn Leu Val Val Ser Val Leu Gly
 50 55 60
 Gly Ser Gly Gly Pro Val Leu Gln Thr Trp Leu Gln Asp Leu Leu
 65 70 75

Arg Arg Gly Leu Val Arg Ala Ala Gln Ser Thr Gly Ala Trp Ile	80	85	90
Val Thr Gly Gly Leu His Thr Gly Ile Gly Arg His Val Gly Val	95	100	105
Ala Val Arg Asp His Gln Met Ala Ser Thr Gly Gly Thr Lys Val	110	115	120
Val Ala Met Gly Val Ala Pro Trp Gly Val Val Arg Asn Arg Asp	125	130	135
Thr Leu Ile Asn Pro Lys Gly Ser Phe Pro Ala Arg Tyr Arg Trp	140	145	150
Arg Gly Asp Pro Glu Asp Gly Val Gln Phe Pro Leu Asp Tyr Asn	155	160	165
Tyr Ser Ala Phe Phe Leu Val Asp Asp Gly Thr His Gly Cys Leu	170	175	180
Gly Gly Glu Asn Arg Phe Arg Leu Arg Leu Glu Ser Tyr Ile Ser	185	190	195
Gln Gln Lys Thr Gly Val Gly Gly Thr Gly Ile Asp Ile Pro Val	200	205	210
Leu Leu Leu Leu Ile Asp Gly Asp Glu Lys Met Leu Thr Arg Ile	215	220	225
Glu Asn Ala Thr Gln Ala Gln Leu Pro Cys Leu Leu Val Ala Gly	230	235	240
Ser Gly Gly Ala Ala Asp Cys Leu Ala Glu Thr Leu Glu Asp Thr	245	250	255
Leu Ala Pro Gly Ser Gly Gly Ala Arg Gln Gly Glu Ala Arg Asp	260	265	270
Arg Ile Arg Arg Phe Phe Pro Lys Gly Asp Leu Glu Val Leu Gln	275	280	285
Ala Gln Val Glu Arg Ile Met Thr Arg Lys Glu Leu Leu Thr Val	290	295	300
Tyr Ser Ser Glu Asp Gly Ser Glu Glu Phe Glu Thr Ile Val Leu	305	310	315
Lys Ala Leu Val Lys Ala Cys Gly Ser Ser Glu Ala Ser Ala Tyr	320	325	330
Leu Asp Glu Leu Arg Leu Ala Val Ala Trp Asn Arg Val Asp Ile	335	340	345
Ala Gln Ser Glu Leu Phe Arg Gly Asp Ile Gln Trp Arg Ser Phe	350	355	360
His Leu Glu Ala Ser Leu Met Asp Ala Leu Leu Asn Asp Arg Pro			

365		370		375
Glu Phe Val Arg	Leu Leu Ile Ser His	Gly Leu Ser Leu Gly His		
	380	385		390
Phe Leu Thr Pro	Met Arg Leu Ala Gln	Leu Tyr Ser Ala Ala Pro		
	395	400		405
Ser Asn Ser Leu	Ile Arg Asn Leu Leu	Asp Gln Ala Ser His Ser		
	410	415		420
Ala Gly Thr Lys	Ala Pro Ala Leu Lys	Gly Gly Ala Ala Glu Leu		
	425	430		435
Arg Pro Pro Asp	Val Gly His Val Leu	Arg Met Leu Leu Gly Lys		
	440	445		450
Met Cys Ala Pro	Arg Tyr Pro Ser Gly	Gly Ala Trp Asp Pro His		
	455	460		465
Pro Gly Gln Gly	Phe Gly Glu Ser Met	Tyr Leu Leu Ser Asp Lys		
	470	475		480
Ala Thr Ser Pro	Leu Ser Leu Asp Ala	Gly Leu Gly Gln Ala Pro		
	485	490		495
Trp Ser Asp Leu	Leu Leu Trp Ala Leu	Leu Leu Asn Arg Ala Gln		
	500	505		510
Met Ala Met Tyr	Phe Trp Glu Met Gly	Ser Asn Ala Val Ser Ser		
	515	520		525
Ala Leu Gly Ala	Cys Leu Leu Leu Arg	Val Met Ala Arg Leu Glu		
	530	535		540
Pro Asp Ala Glu	Glu Ala Ala Arg Arg	Lys Asp Leu Ala Phe Lys		
	545	550		555
Phe Glu Gly Met	Gly Val Asp Leu Phe	Gly Glu Cys Tyr Arg Ser		
	560	565		570
Ser Glu Val Arg	Ala Ala Arg Leu Leu	Leu Arg Arg Cys Pro Leu		
	575	580		585
Trp Gly Asp Ala	Thr Cys Leu Gln Leu	Ala Met Gln Ala Asp Ala		
	590	595		600
Arg Ala Phe Phe	Ala Gln Asp Gly Val	Gln Ser Leu Leu Thr Gln		
	605	610		615
Lys Trp Trp Gly	Asp Met Ala Ser Thr	Thr Pro Ile Trp Ala Leu		
	620	625		630
Val Leu Ala Phe	Phe Cys Pro Pro Leu	Ile Tyr Thr Arg Leu Ile		
	635	640		645
Thr Phe Arg Lys	Ser Glu Glu Glu Pro	Thr Arg Glu Glu Leu Glu		
	650	655		660

Phe	Asp	Met	Asp	Ser	Val	Ile	Asn	Gly	Glu	Gly	Pro	Val	Gly	Thr	665	670	675
Ala	Asp	Pro	Ala	Glu	Lys	Thr	Pro	Leu	Gly	Val	Pro	Arg	Gln	Ser	680	685	690
Gly	Arg	Pro	Gly	Cys	Cys	Gly	Gly	Arg	Cys	Gly	Gly	Arg	Arg	Cys	695	700	705
Leu	Arg	Arg	Trp	Phe	His	Phe	Trp	Gly	Ala	Pro	Val	Thr	Ile	Phe	710	715	720
Met	Gly	Asn	Val	Val	Ser	Tyr	Leu	Leu	Phe	Leu	Leu	Leu	Phe	Ser	725	730	735
Arg	Val	Leu	Leu	Val	Asp	Phe	Gln	Pro	Ala	Pro	Pro	Gly	Ser	Leu	740	745	750
Glu	Leu	Leu	Leu	Tyr	Phe	Trp	Ala	Phe	Thr	Leu	Leu	Cys	Glu	Glu	755	760	765
Leu	Arg	Gln	Gly	Leu	Ser	Gly	Gly	Gly	Gly	Ser	Leu	Ala	Ser	Gly	770	775	780
Gly	Pro	Gly	Pro	Gly	His	Ala	Ser	Leu	Ser	Gln	Arg	Leu	Arg	Leu	785	790	795
Tyr	Leu	Ala	Asp	Ser	Trp	Asn	Gln	Cys	Asp	Leu	Val	Ala	Leu	Thr	800	805	810
Cys	Phe	Leu	Leu	Gly	Val	Gly	Cys	Arg	Leu	Thr	Pro	Gly	Leu	Tyr	815	820	825
His	Leu	Gly	Arg	Thr	Val	Leu	Cys	Ile	Asp	Phe	Met	Val	Phe	Thr	830	835	840
Val	Arg	Leu	Leu	His	Ile	Phe	Thr	Val	Asn	Lys	Gln	Leu	Gly	Pro	845	850	855
Lys	Ile	Val	Ile	Val	Ser	Lys	Met	Met	Lys	Asp	Val	Phe	Phe	Phe	860	865	870
Leu	Phe	Phe	Leu	Gly	Val	Trp	Leu	Val	Ala	Tyr	Gly	Val	Ala	Thr	875	880	885
Glu	Gly	Leu	Leu	Arg	Pro	Arg	Asp	Ser	Asp	Phe	Pro	Ser	Ile	Leu	890	895	900
Arg	Arg	Val	Phe	Tyr	Arg	Pro	Tyr	Leu	Gln	Ile	Phe	Gly	Gln	Ile	905	910	915
Pro	Gln	Glu	Asp	Met	Asp	Val	Ala	Leu	Met	Glu	His	Ser	Asn	Cys	920	925	930
Ser	Ser	Glu	Pro	Gly	Phe	Trp	Ala	His	Pro	Pro	Gly	Ala	Gln	Ala	935	940	945
Gly	Thr	Cys	Val	Ser	Gln	Tyr	Ala	Asn	Trp	Leu	Val	Val	Leu	Leu			

950	955	960
Leu Val Ile Phe Leu Leu Val Ala Asn Ile Leu Leu Val Asn Leu		
965	970	975
Leu Ile Ala Met Phe Ser Tyr Thr Phe Gly Lys Val Gln Gly Asn		
980	985	990
Ser Asp Leu Tyr Trp Lys Ala Gln Arg Tyr Arg Leu Ile Arg Glu		
995	1000	1005
Phe His Ser Arg Pro Ala Leu Ala Pro Pro Phe Ile Val Ile Ser		
1010	1015	1020
His Leu Arg Leu Leu Leu Arg Gln Leu Cys Arg Arg Pro Arg Ser		
1025	1030	1035
Pro Gln Pro Ser Ser Pro Ala Leu Glu His Phe Arg Val Tyr Leu		
1040	1045	1050
Ser Lys Glu Ala Glu Arg Lys Leu Leu Thr Trp Glu Ser Val His		
1055	1060	1065
Lys Glu Asn Phe Leu Leu Ala Arg Ala Arg Asp Lys Arg Glu Ser		
1070	1075	1080
Asp Ser Glu Arg Leu Glu Arg Thr Ser Gln Lys Val Asp Leu Ala		
1085	1090	1095
Leu Lys Gln Leu Gly His Ile Arg Glu Tyr Glu Gln Arg Leu Lys		
1100	1105	1110
Val Leu Glu Arg Glu Val Gln Gln Cys Ser Arg Val Leu Gly Trp		
1115	1120	1125

Val Thr

<210> 124
 <211> 1932
 <212> PRT
 <213> Homo sapien

<400> 124
 Met His Leu His Arg Arg Phe Thr Asp Leu Ile Trp Lys Asn Leu
 1 5 10 15
 Cys Pro Ala Leu Ile Val Ile Leu Gly Asn Pro Ile His Asp Lys
 20 25 30
 Thr Ile Thr Ser Ala His Thr Ser Ser Thr Ser Thr Ser Leu Glu
 35 40 45
 Ser Asp Ser Ala Ser Pro Gly Val Ser Asp His Gly Arg Gly Ser
 50 55 60
 Gly Cys Ser Cys Thr Ala Pro Ala Leu Ser Gly Pro Val Ala Arg
 65 70 75

Thr	Ile	Tyr	Tyr	Ile	Ala	Ala	Glu	Leu	Val	Arg	Leu	Val	Gly	Ser		80	85	90
Val	Asp	Ser	Met	Lys	Pro	Val	Leu	Gln	Ser	Leu	Tyr	His	Arg	Val		95	100	105
Leu	Leu	Tyr	Pro	Pro	Pro	Gln	His	Arg	Val	Glu	Ala	Ile	Lys	Ile		110	115	120
Met	Lys	Glu	Ile	Leu	Gly	Ser	Pro	Gln	Arg	Leu	Cys	Asp	Leu	Ala		125	130	135
Gly	Pro	Ser	Ser	Thr	Glu	Ser	Glu	Ser	Arg	Lys	Arg	Ser	Ile	Ser		140	145	150
Lys	Arg	Lys	Ser	His	Leu	Asp	Leu	Leu	Lys	Leu	Ile	Met	Asp	Gly		155	160	165
Met	Thr	Glu	Ala	Cys	Ile	Lys	Gly	Gly	Ile	Glu	Ala	Cys	Tyr	Ala		170	175	180
Ala	Val	Ser	Cys	Val	Cys	Thr	Leu	Leu	Gly	Ala	Leu	Asp	Glu	Leu		185	190	195
Ser	Gln	Gly	Lys	Gly	Leu	Ser	Glu	Gly	Gln	Val	Gln	Leu	Leu	Leu		200	205	210
Leu	Arg	Leu	Glu	Glu	Leu	Lys	Asp	Gly	Ala	Glu	Trp	Ser	Arg	Asp		215	220	225
Ser	Met	Glu	Ile	Asn	Glu	Ala	Asp	Phe	Arg	Trp	Gln	Arg	Arg	Val		230	235	240
Leu	Ser	Ser	Glu	His	Thr	Pro	Trp	Glu	Ser	Gly	Asn	Glu	Arg	Ser		245	250	255
Leu	Asp	Ile	Ser	Ile	Ser	Val	Thr	Thr	Asp	Thr	Gly	Gln	Thr	Thr		260	265	270
Leu	Glu	Gly	Glu	Leu	Gly	Gln	Thr	Thr	Pro	Glu	Asp	His	Ser	Gly		275	280	285
Asn	His	Lys	Asn	Ser	Leu	Lys	Ser	Pro	Ala	Ile	Pro	Glu	Gly	Lys		290	295	300
Glu	Thr	Leu	Ser	Lys	Val	Leu	Glu	Thr	Glu	Ala	Val	Asp	Gln	Pro		305	310	315
Asp	Val	Val	Gln	Arg	Ser	His	Thr	Val	Pro	Tyr	Pro	Asp	Ile	Thr		320	325	330
Asn	Phe	Leu	Ser	Val	Asp	Cys	Arg	Thr	Arg	Ser	Tyr	Gly	Ser	Arg		335	340	345
Tyr	Ser	Glu	Ser	Asn	Phe	Ser	Val	Asp	Asp	Gln	Asp	Leu	Ser	Arg		350	355	360
Thr	Glu	Phe	Asp	Ser	Cys	Asp	Gln	Tyr	Ser	Met	Ala	Ala	Glu	Lys				

365	370	375
Asp Ser Gly Arg Ser Asp Val Ser Asp	Ile Gly Ser Asp Asn Cys	
380	385	390
Ser Leu Ala Asp Glu Glu Gln Thr Pro	Arg Asp Cys Leu Gly His	
395	400	405
Arg Ser Leu Arg Thr Ala Ala Leu Ser	Leu Lys Leu Leu Lys Asn	
410	415	420
Gln Glu Ala Asp Gln His Ser Ala Arg	Leu Phe Ile Gln Ser Leu	
425	430	435
Glu Gly Leu Leu Pro Arg Leu Leu Ser	Leu Ser Asn Val Glu Glu	
440	445	450
Val Asp Thr Ala Leu Gln Asn Phe Ala	Ser Thr Phe Cys Ser Gly	
455	460	465
Met Met His Ser Pro Gly Phe Asp Gly	Asn Ser Ser Leu Ser Phe	
470	475	480
Gln Met Leu Met Asn Ala Asp Ser Leu	Tyr Thr Ala Ala His Cys	
485	490	495
Ala Leu Leu Leu Asn Leu Lys Leu Ser	His Gly Asp Tyr Tyr Arg	
500	505	510
Lys Arg Pro Thr Leu Ala Pro Gly Val	Met Lys Asp Phe Met Lys	
515	520	525
Gln Val Gln Thr Ser Gly Val Leu Met	Val Phe Ser Gln Ala Trp	
530	535	540
Ile Glu Glu Leu Tyr His Gln Val Leu	Asp Arg Asn Met Leu Gly	
545	550	555
Glu Ala Gly Tyr Trp Gly Ser Pro Glu	Asp Asn Ser Leu Pro Leu	
560	565	570
Ile Thr Met Leu Thr Asp Ile Asp Gly	Leu Glu Ser Ser Ala Ile	
575	580	585
Gly Gly Gln Leu Met Ala Ser Ala Ala	Thr Glu Ser Pro Phe Ala	
590	595	600
Gln Ser Arg Arg Ile Asp Asp Ser Thr	Val Ala Gly Val Ala Phe	
605	610	615
Ala Arg Tyr Ile Leu Val Gly Cys Trp	Lys Asn Leu Ile Asp Thr	
620	625	630
Leu Ser Thr Pro Leu Thr Gly Arg Met	Ala Gly Ser Ser Lys Gly	
635	640	645
Leu Ala Phe Ile Leu Gly Ala Glu Gly	Ile Lys Glu Gln Asn Gln	
650	655	660

Lys Glu Arg Asp	Ala Ile Cys Met Ser	Leu Asp Gly Leu Arg	Lys
665		670	675
Ala Ala Arg Leu	Ser Cys Ala Leu Gly	Val Ala Ala Asn Cys	Ala
680		685	690
Ser Ala Leu Ala	Gln Met Ala Ala Ala	Ser Cys Val Gln Glu	Glu
695		700	705
Lys Glu Glu Arg	Glu Ala Gln Glu Pro	Ser Asp Ala Ile Thr	Gln
710		715	720
Val Lys Leu Lys	Val Glu Gln Lys Leu	Glu Gln Ile Gly Lys	Val
725		730	735
Gln Gly Val Trp	Leu His Thr Ala His	Val Leu Cys Met Glu	Ala
740		745	750
Ile Leu Ser Val	Gly Leu Glu Met Gly	Ser His Asn Pro Asp	Cys
755		760	765
Trp Pro His Val	Phe Arg Val Cys Glu	Tyr Val Gly Thr Leu	Glu
770		775	780
His Asn His Phe	Ser Asp Gly Ala Ser	Gln Pro Pro Leu Thr	Ile
785		790	795
Ser Gln Pro Gln	Lys Ala Thr Gly Ser	Ala Gly Leu Leu Gly	Asp
800		805	810
Pro Glu Cys Glu	Gly Ser Pro Pro Glu	His Ser Pro Glu Gln	Gly
815		820	825
Arg Ser Leu Ser	Thr Ala Pro Val Val	Gln Pro Leu Ser Ile	Gln
830		835	840
Asp Leu Val Arg	Glu Gly Ser Arg Gly	Arg Ala Ser Asp Phe	Arg
845		850	855
Gly Gly Ser Leu	Met Ser Gly Ser Ser	Ala Ala Lys Val Val	Leu
860		865	870
Thr Leu Ser Thr	Gln Ala Asp Arg Leu	Phe Glu Asp Ala Thr	Asp
875		880	885
Lys Leu Asn Leu	Met Ala Leu Gly Gly	Phe Leu Tyr Gln Leu	Lys
890		895	900
Lys Ala Ser Gln	Ser Gln Leu Phe His	Ser Val Thr Asp Thr	Val
905		910	915
Asp Tyr Ser Leu	Ala Met Pro Gly Glu	Val Lys Ser Thr Gln	Asp
920		925	930
Arg Lys Ser Ala	Leu His Leu Phe Arg	Leu Gly Asn Ala Met	Leu
935		940	945
Arg Ile Val Arg	Ser Lys Ala Arg Pro	Leu Leu His Val Met	Arg

950	955	960
Cys Trp Ser Leu Val Ala Pro His Leu Val Glu Ala Ala Cys His		
965	970	975
Lys Glu Arg His Val Ser Gln Lys Ala Val Ser Phe Ile His Asp		
980	985	990
Ile Leu Thr Glu Val Leu Thr Asp Trp Asn Glu Pro Pro His Phe		
995	1000	1005
His Phe Asn Glu Ala Leu Phe Arg Pro Phe Glu Arg Ile Met Gln		
1010	1015	1020
Leu Glu Leu Cys Asp Glu Asp Val Gln Asp Gln Val Val Thr Ser		
1025	1030	1035
Ile Gly Glu Leu Val Glu Val Cys Ser Thr Gln Ile Gln Ser Gly		
1040	1045	1050
Trp Arg Pro Leu Phe Ser Ala Leu Glu Thr Val His Gly Gly Asn		
1055	1060	1065
Lys Ser Glu Met Lys Glu Tyr Leu Val Gly Asp Tyr Ser Met Gly		
1070	1075	1080
Lys Gly Gln Ala Pro Val Phe Asp Val Phe Glu Ala Phe Leu Asn		
1085	1090	1095
Thr Asp Asn Ile Gln Val Phe Ala Asn Ala Ala Thr Ser Tyr Ile		
1100	1105	1110
Met Cys Leu Met Lys Phe Val Lys Gly Leu Gly Glu Val Asp Cys		
1115	1120	1125
Lys Glu Ile Gly Asp Cys Ala Pro Ala Pro Gly Ala Pro Ser Thr		
1130	1135	1140
Asp Leu Cys Leu Pro Ala Leu Asp Tyr Leu Arg Arg Cys Ser Gln		
1145	1150	1155
Leu Leu Ala Lys Ile Tyr Lys Met Pro Leu Lys Pro Ile Phe Leu		
1160	1165	1170
Ser Gly Arg Leu Ala Gly Leu Pro Arg Arg Leu Gln Glu Gln Ser		
1175	1180	1185
Ala Ser Ser Glu Asp Gly Ile Glu Ser Val Leu Ser Asp Phe Asp		
1190	1195	1200
Asp Asp Thr Gly Leu Ile Glu Val Trp Ile Ile Leu Leu Glu Gln		
1205	1210	1215
Leu Thr Ala Ala Val Ser Asn Cys Pro Arg Gln His Gln Pro Pro		
1220	1225	1230
Thr Leu Asp Leu Leu Phe Glu Leu Leu Arg Asp Val Thr Lys Thr		
1235	1240	1245

Pro Gly Pro Gly Phe Gly Ile Tyr Ala Val Val His Leu Leu Leu	1250	1255	1260
Pro Val Met Ser Val Trp Leu Arg Arg Ser His Lys Asp His Ser	1265	1270	1275
Tyr Trp Asp Met Ala Ser Ala Asn Phe Lys His Ala Ile Gly Leu	1280	1285	1290
Ser Cys Glu Leu Val Val Glu His Ile Gln Ser Phe Leu His Ser	1295	1300	1305
Asp Ile Arg Tyr Glu Ser Met Ile Asn Thr Met Leu Lys Asp Leu	1310	1315	1320
Phe Glu Leu Leu Val Ala Cys Val Ala Lys Pro Thr Glu Thr Ile	1325	1330	1335
Ser Arg Val Gly Cys Ser Cys Ile Arg Tyr Val Leu Val Thr Ala	1340	1345	1350
Gly Pro Val Phe Thr Glu Glu Met Trp Arg Leu Ala Cys Cys Ala	1355	1360	1365
Leu Gln Asp Ala Phe Ser Ala Thr Leu Lys Pro Val Lys Asp Leu	1370	1375	1380
Leu Gly Cys Phe His Ser Gly Thr Glu Ser Phe Ser Gly Glu Gly	1385	1390	1395
Cys Gln Val Arg Val Ala Ala Pro Ser Ser Ser Pro Ser Ala Glu	1400	1405	1410
Ala Glu Tyr Trp Arg Ile Arg Ala Met Ala Gln Gln Val Phe Met	1415	1420	1425
Leu Asp Thr Gln Cys Ser Pro Lys Thr Pro Asn Asn Phe Asp His	1430	1435	1440
Ala Gln Ser Cys Gln Leu Ile Ile Glu Leu Pro Pro Asp Glu Lys	1445	1450	1455
Pro Asn Gly His Thr Lys Lys Ser Val Ser Phe Arg Glu Ile Val	1460	1465	1470
Val Ser Leu Leu Ser His Gln Val Leu Leu Gln Asn Leu Tyr Asp	1475	1480	1485
Ile Leu Leu Glu Glu Phe Val Lys Gly Pro Ser Pro Gly Glu Glu	1490	1495	1500
Lys Thr Ile Gln Val Pro Glu Ala Lys Leu Ala Gly Phe Leu Arg	1505	1510	1515
Tyr Ile Ser Met Gln Asn Leu Ala Val Ile Phe Asp Leu Leu Leu	1520	1525	1530
Asp Ser Tyr Arg Thr Ala Arg Glu Phe Asp Thr Ser Pro Gly Leu			

1535	1540	1545
Lys Cys Leu Leu Lys Lys Val Ser Gly Ile Gly Gly Ala Ala Asn		
1550	1555	1560
Leu Tyr Arg Gln Ser Ala Met Ser Phe Asn Ile Tyr Phe His Ala		
1565	1570	1575
Leu Val Cys Ala Val Leu Thr Asn Gln Glu Thr Ile Thr Ala Glu		
1580	1585	1590
Gln Val Lys Lys Val Leu Phe Glu Asp Asp Glu Arg Ser Thr Asp		
1595	1600	1605
Ser Ser Gln Gln Cys Ser Ser Glu Asp Glu Asp Ile Phe Glu Glu		
1610	1615	1620
Thr Ala Gln Val Ser Pro Pro Arg Gly Lys Glu Lys Arg Gln Trp		
1625	1630	1635
Arg Ala Arg Met Pro Leu Leu Ser Val Gln Pro Val Ser Asn Ala		
1640	1645	1650
Asp Trp Val Trp Leu Val Lys Arg Leu His Lys Leu Cys Met Glu		
1655	1660	1665
Leu Cys Asn Asn Tyr Ile Gln Met His Leu Asp Leu Glu Asn Cys		
1670	1675	1680
Met Glu Glu Pro Pro Ile Phe Lys Gly Asp Pro Phe Phe Ile Leu		
1685	1690	1695
Pro Ser Phe Gln Ser Glu Ser Ser Thr Pro Ser Thr Gly Gly Phe		
1700	1705	1710
Ser Gly Lys Glu Thr Pro Ser Glu Asp Asp Arg Ser Gln Ser Arg		
1715	1720	1725
Glu His Met Gly Glu Ser Leu Ser Leu Lys Ala Gly Gly Gly Asp		
1730	1735	1740
Leu Leu Leu Pro Pro Ser Pro Lys Val Glu Lys Lys Asp Pro Ser		
1745	1750	1755
Arg Lys Lys Glu Trp Trp Glu Asn Ala Gly Asn Lys Ile Tyr Thr		
1760	1765	1770
Met Ala Ala Asp Lys Thr Ile Ser Lys Leu Met Thr Glu Tyr Lys		
1775	1780	1785
Lys Arg Lys Gln Gln His Asn Leu Ser Ala Phe Pro Lys Glu Val		
1790	1795	1800
Lys Val Glu Lys Lys Gly Glu Pro Leu Gly Pro Arg Gly Gln Asp		
1805	1810	1815
Ser Pro Leu Leu Gln Arg Pro Gln His Leu Met Asp Gln Gly Gln		
1820	1825	1830

Met Arg His Ser Phe Ser Ala Gly Pro Glu Leu Leu Arg Gln Asp
1835 1840 1845

Lys Arg Pro Arg Ser Gly Ser Thr Gly Ser Ser Leu Ser Val Ser
1850 1855 1860

Val Arg Asp Ala Glu Ala Gln Ile Gln Ala Trp Thr Asn Met Val
1865 1870 1875

Leu Thr Val Leu Asn Gln Ile Gln Ile Leu Pro Asp Gln Thr Phe
1880 1885 1890

Thr Ala Leu Gln Pro Ala Val Phe Pro Cys Ile Ser Gln Leu Thr
1895 1900 1905

Cys His Val Thr Asp Ile Arg Val Arg Gln Ala Val Arg Glu Trp
1910 1915 1920

Leu Gly Arg Val Gly Arg Val Tyr Asp Ile Ile Val
1925 1930

<210> 125
<211> 317
<212> PRT
<213> Homo sapien

<400> 125
Met Val Asp Pro Asn Gly Asn Glu Ser Ser Ala Thr Tyr Phe Ile
1 5 10 15

Leu Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe Trp Leu Ala
20 25 30

Phe Pro Leu Cys Ser Leu Tyr Leu Ile Ala Val Leu Gly Asn Leu
35 40 45

Thr Ile Ile Tyr Ile Val Arg Thr Glu His Ser Leu His Glu Pro
50 55 60

Met Tyr Ile Phe Leu Cys Met Leu Ser Gly Ile Asp Ile Leu Ile
65 70 75

Ser Thr Ser Ser Met Pro Lys Met Leu Ala Ile Phe Trp Phe Asn
80 85 90

Ser Thr Thr Ile Gln Phe Asp Ala Cys Leu Leu Gln Ile Phe Ala
95 100 105

Ile His Ser Leu Ser Gly Met Glu Ser Thr Val Leu Leu Ala Met
110 115 120

Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg His Ala
125 130 135

Thr Val Leu Thr Leu Pro Arg Val Thr Lys Ile Gly Val Ala Ala
140 145 150

Val Val Arg Gly Ala Ala Leu Met Ala Pro Leu Pro Val Phe Ile

	155		160		165
Lys Gln Leu Pro Phe Cys Arg Ser Asn Ile Leu Ser His Ser Tyr	170		175		180
Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Asp Asp Ile Arg	185		190		195
Val Asn Val Val Tyr Gly Leu Ile Val Ile Ile Ser Ala Ile Gly	200		205		210
Leu Asp Ser Leu Leu Ile Ser Phe Ser Tyr Leu Leu Ile Leu Lys	215		220		225
Thr Val Leu Gly Leu Thr Arg Glu Ala Gln Ala Lys Ala Phe Gly	230		235		240
Thr Cys Val Ser His Val Cys Ala Val Phe Ile Phe Tyr Val Pro	245		250		255
Phe Ile Gly Leu Ser Met Val His Arg Phe Ser Lys Arg Arg Asp	260		265		270
Ser Pro Leu Pro Val Ile Leu Ala Asn Ile Tyr Leu Leu Val Pro	275		280		285
Pro Val Leu Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Glu Ile	290		295		300
Arg Gln Arg Ile Leu Arg Leu Phe His Val Ala Thr His Ala Ser	305		310		315

Glu Pro

<210> 126
 <211> 530
 <212> PRT
 <213> Homo sapien

<400> 126
 Met Gly Ser Asn Ser Gly Gln Ala Gly Arg His Ile Tyr Lys Ser
 1 5 10 15
 Leu Ala Asp Asp Gly Pro Phe Asp Ser Val Glu Pro Pro Lys Arg
 20 25 30
 Pro Thr Ser Arg Leu Ile Met His Ser Met Ala Met Phe Gly Arg
 35 40 45
 Glu Phe Cys Tyr Ala Val Glu Ala Ala Tyr Val Thr Pro Val Leu
 50 55 60
 Leu Ser Val Gly Leu Pro Ser Ser Leu Tyr Ser Ile Val Trp Phe
 65 70 75
 Leu Ser Pro Ile Leu Gly Phe Leu Leu Gln Pro Val Val Gly Ser
 80 85 90

Ala	Ser	Asp	His	Cys	Arg	Ser	Arg	Trp	Gly	Arg	Arg	Arg	Pro	Tyr	95	100	105
Ile	Leu	Thr	Leu	Gly	Val	Met	Met	Leu	Val	Gly	Met	Ala	Leu	Tyr	110	115	120
Leu	Asn	Gly	Ala	Thr	Val	Val	Ala	Ala	Leu	Ile	Ala	Asn	Pro	Arg	125	130	135
Arg	Lys	Leu	Val	Trp	Ala	Ile	Ser	Val	Thr	Met	Ile	Gly	Val	Val	140	145	150
Leu	Phe	Asp	Phe	Ala	Ala	Asp	Phe	Ile	Asp	Gly	Pro	Ile	Lys	Ala	155	160	165
Tyr	Leu	Phe	Asp	Val	Cys	Ser	His	Gln	Asp	Lys	Glu	Lys	Gly	Leu	170	175	180
His	Tyr	His	Ala	Leu	Phe	Thr	Gly	Phe	Gly	Gly	Ala	Leu	Gly	Tyr	185	190	195
Leu	Leu	Gly	Ala	Ile	Asp	Trp	Ala	His	Leu	Glu	Leu	Gly	Arg	Leu	200	205	210
Leu	Gly	Thr	Glu	Phe	Gln	Val	Met	Phe	Phe	Phe	Ser	Ala	Leu	Val	215	220	225
Leu	Thr	Leu	Cys	Phe	Thr	Val	His	Leu	Cys	Ser	Ile	Ser	Glu	Ala	230	235	240
Pro	Leu	Thr	Glu	Val	Ala	Lys	Gly	Ile	Pro	Pro	Gln	Gln	Thr	Pro	245	250	255
Gln	Asp	Pro	Pro	Leu	Ser	Ser	Asp	Gly	Met	Tyr	Glu	Tyr	Gly	Ser	260	265	270
Ile	Glu	Lys	Val	Lys	Asn	Gly	Tyr	Val	Asn	Pro	Glu	Leu	Ala	Met	275	280	285
Gln	Gly	Ala	Lys	Asn	Lys	Asn	His	Ala	Glu	Gln	Thr	Arg	Arg	Ala	290	295	300
Met	Thr	Leu	Lys	Ser	Leu	Leu	Arg	Ala	Leu	Val	Asn	Met	Pro	Pro	305	310	315
His	Tyr	Arg	Tyr	Leu	Cys	Ile	Ser	His	Leu	Ile	Gly	Trp	Thr	Ala	320	325	330
Phe	Leu	Ser	Asn	Met	Leu	Phe	Phe	Thr	Asp	Phe	Met	Gly	Gln	Ile	335	340	345
Val	Tyr	Arg	Gly	Asp	Pro	Tyr	Ser	Ala	His	Asn	Ser	Thr	Glu	Phe	350	355	360
Leu	Ile	Tyr	Glu	Arg	Gly	Val	Glu	Val	Gly	Cys	Trp	Gly	Phe	Cys	365	370	375
Ile	Asn	Ser	Val	Phe	Ser	Ser	Leu	Tyr	Ser	Tyr	Phe	Gln	Lys	Val			

380	385	390
Leu Val Ser Tyr Ile Gly Leu Lys Gly	Leu Tyr Phe Thr Gly Tyr	
395	400	405
Leu Leu Phe Gly Leu Gly Thr Gly Phe	Ile Gly Leu Phe Pro Asn	
410	415	420
Val Tyr Ser Thr Leu Val Leu Cys Ser	Leu Phe Gly Val Met Ser	
425	430	435
Ser Thr Leu Tyr Thr Val Pro Phe Asn	Leu Ile Thr Glu Tyr His	
440	445	450
Arg Glu Glu Glu Lys Glu Arg Gln Gln	Ala Pro Gly Gly Asp Pro	
455	460	465
Asp Asn Ser Val Arg Gly Lys Gly Met	Asp Cys Ala Thr Leu Thr	
470	475	480
Cys Met Val Gln Leu Ala Gln Ile Leu	Val Gly Gly Gly Leu Gly	
485	490	495
Phe Leu Val Asn Thr Ala Gly Thr Val	Val Val Val Val Ile Thr	
500	505	510
Ala Ser Ala Val Ala Leu Ile Gly Cys	Cys Phe Val Ala Leu Phe	
515	520	525
Val Arg Tyr Val Asp		
530		

<210> 127
 <211> 811
 <212> PRT
 <213> Homo sapien

<400> 127

Met Arg Leu Ile Arg Asn Ile Tyr Ile	Phe Cys Ser Ile Val Met
1	5 10 15
Thr Ala Glu Gly Asp Ala Pro Glu Leu	Pro Glu Glu Arg Glu Leu
20	25 30
Met Thr Asn Cys Ser Asn Met Ser Leu	Arg Lys Val Pro Ala Asp
35	40 45
Leu Thr Pro Ala Thr Thr Thr Leu Asp	Leu Ser Tyr Asn Leu Leu
50	55 60
Phe Gln Leu Gln Ser Ser Asp Phe His	Ser Val Ser Lys Leu Arg
65	70 75
Val Leu Ile Leu Cys His Asn Arg Ile	Gln Gln Leu Asp Leu Lys
80	85 90
Thr Phe Glu Phe Asn Lys Glu Leu Arg	Tyr Leu Asp Leu Ser Asn
95	100 105

Asn Arg Leu Lys Ser Val Thr Trp Tyr Leu Leu Ala Gly Leu Arg	110	115	120
Tyr Leu Asp Leu Ser Phe Asn Asp Phe Asp Thr Met Pro Ile Cys	125	130	135
Glu Glu Ala Gly Asn Met Ser His Leu Glu Ile Leu Gly Leu Ser	140	145	150
Gly Ala Lys Ile Gln Lys Ser Asp Phe Gln Lys Ile Ala His Leu	155	160	165
His Leu Asn Thr Val Phe Leu Gly Phe Arg Thr Leu Pro His Tyr	170	175	180
Glu Glu Gly Ser Leu Pro Ile Leu Asn Thr Thr Lys Leu His Ile	185	190	195
Val Leu Pro Met Asp Thr Asn Phe Trp Val Leu Leu Arg Asp Gly	200	205	210
Ile Lys Thr Ser Lys Ile Leu Glu Met Thr Asn Ile Asp Gly Lys	215	220	225
Ser Gln Phe Val Ser Tyr Glu Met Gln Arg Asn Leu Ser Leu Glu	230	235	240
Asn Ala Lys Thr Ser Val Leu Leu Leu Asn Lys Val Asp Leu Leu	245	250	255
Trp Asp Asp Leu Phe Leu Ile Leu Gln Phe Val Trp His Thr Ser	260	265	270
Val Glu His Phe Gln Ile Arg Asn Val Thr Phe Gly Gly Lys Ala	275	280	285
Tyr Leu Asp His Asn Ser Phe Asp Tyr Ser Asn Thr Val Met Arg	290	295	300
Thr Ile Lys Leu Glu His Val His Phe Arg Val Phe Tyr Ile Gln	305	310	315
Gln Asp Lys Ile Tyr Leu Leu Leu Thr Lys Met Asp Ile Glu Asn	320	325	330
Leu Thr Ile Ser Asn Ala Gln Met Pro His Met Leu Phe Pro Asn	335	340	345
Tyr Pro Thr Lys Phe Gln Tyr Leu Asn Phe Ala Asn Asn Ile Leu	350	355	360
Thr Asp Glu Leu Phe Lys Arg Thr Ile Gln Leu Pro His Leu Lys	365	370	375
Thr Leu Ile Leu Asn Gly Asn Lys Leu Glu Thr Leu Ser Leu Val	380	385	390
Ser Cys Phe Ala Asn Asn Thr Pro Leu Glu His Leu Asp Leu Ser			

395										400					405				
Gln	Asn	Leu	Leu	Gln	His	Lys	Asn	Asp	Glu	Asn	Cys	Ser	Trp	Pro					
				410					415					420					
Glu	Thr	Val	Val	Asn	Met	Asn	Leu	Ser	Tyr	Asn	Lys	Leu	Ser	Asp					
				425					430					435					
Ser	Val	Phe	Arg	Cys	Leu	Pro	Lys	Ser	Ile	Gln	Ile	Leu	Asp	Leu					
				440					445					450					
Asn	Asn	Asn	Gln	Ile	Gln	Thr	Val	Pro	Lys	Glu	Thr	Ile	His	Leu					
				455					460					465					
Met	Ala	Leu	Arg	Glu	Leu	Asn	Ile	Ala	Phe	Asn	Phe	Leu	Thr	Asp					
				470					475					480					
Leu	Pro	Gly	Cys	Ser	His	Phe	Ser	Arg	Leu	Ser	Val	Leu	Asn	Ile					
				485					490					495					
Glu	Met	Asn	Phe	Ile	Leu	Ser	Pro	Ser	Leu	Asp	Phe	Val	Gln	Ser					
				500					505					510					
Cys	Gln	Glu	Val	Lys	Thr	Leu	Asn	Ala	Gly	Arg	Asn	Pro	Phe	Arg					
				515					520					525					
Cys	Thr	Cys	Glu	Leu	Lys	Asn	Phe	Ile	Gln	Leu	Glu	Thr	Tyr	Ser					
				530					535					540					
Glu	Val	Met	Met	Val	Gly	Trp	Ser	Asp	Ser	Tyr	Thr	Cys	Glu	Tyr					
				545					550					555					
Pro	Leu	Asn	Leu	Arg	Gly	Thr	Arg	Leu	Lys	Asp	Val	His	Leu	His					
				560					565					570					
Glu	Leu	Ser	Cys	Asn	Thr	Ala	Leu	Leu	Ile	Val	Thr	Ile	Val	Val					
				575					580					585					
Ile	Met	Leu	Val	Leu	Gly	Leu	Ala	Val	Ala	Phe	Cys	Cys	Leu	His					
				590					595					600					
Phe	Asp	Leu	Pro	Trp	Tyr	Leu	Arg	Met	Leu	Gly	Gln	Cys	Thr	Gln					
				605					610					615					
Thr	Trp	His	Arg	Val	Arg	Lys	Thr	Thr	Gln	Glu	Gln	Leu	Lys	Arg					
				620					625					630					
Asn	Val	Arg	Phe	His	Ala	Phe	Ile	Ser	Tyr	Ser	Glu	His	Asp	Ser					
				635					640					645					
Leu	Trp	Val	Lys	Asn	Glu	Leu	Ile	Pro	Asn	Leu	Glu	Lys	Glu	Asp					
				650					655					660					
Gly	Ser	Ile	Leu	Ile	Cys	Leu	Tyr	Glu	Ser	Tyr	Phe	Asp	Pro	Gly					
				665					670					675					
Lys	Ser	Ile	Ser	Glu	Asn	Ile	Val	Ser	Phe	Ile	Glu	Lys	Ser	Tyr					
				680					685					690					

Lys	Ser	Ile	Phe	Val	Leu	Ser	Pro	Asn	Phe	Val	Gln	Asn	Glu	Trp
				695					700					705
Cys	His	Tyr	Glu	Phe	Tyr	Phe	Ala	His	His	Asn	Leu	Phe	His	Glu
				710					715					720
Asn	Ser	Asp	His	Ile	Ile	Leu	Ile	Leu	Leu	Glu	Pro	Ile	Pro	Phe
				725					730					735
Tyr	Cys	Ile	Pro	Thr	Arg	Tyr	His	Lys	Leu	Lys	Ala	Leu	Leu	Glu
				740					745					750
Lys	Lys	Ala	Tyr	Leu	Glu	Trp	Pro	Lys	Asp	Arg	Arg	Lys	Cys	Gly
				755					760					765
Leu	Phe	Trp	Ala	Asn	Leu	Arg	Ala	Ala	Ile	Asn	Val	Asn	Val	Leu
				770					775					780
Ala	Thr	Arg	Glu	Met	Tyr	Glu	Leu	Gln	Thr	Phe	Thr	Glu	Leu	Asn
				785					790					795
Glu	Glu	Ser	Arg	Gly	Ser	Thr	Ile	Ser	Leu	Met	Arg	Thr	Asp	Cys
				800					805					810

Leu

<210> 128
 <211> 1382
 <212> PRT
 <213> Homo sapien

<400> 128

Met	Thr	Arg	Lys	Arg	Thr	Tyr	Trp	Val	Pro	Asn	Ser	Ser	Gly	Gly
1				5					10					15
Leu	Val	Asn	Arg	Gly	Ile	Asp	Ile	Gly	Asp	Asp	Met	Val	Ser	Gly
				20					25					30
Leu	Ile	Tyr	Lys	Thr	Tyr	Thr	Leu	Gln	Asp	Gly	Pro	Trp	Ser	Gln
				35					40					45
Gln	Glu	Arg	Asn	Pro	Glu	Ala	Pro	Gly	Arg	Ala	Ala	Val	Pro	Pro
				50					55					60
Trp	Gly	Lys	Tyr	Asp	Ala	Ala	Leu	Arg	Thr	Met	Ile	Pro	Phe	Arg
				65					70					75
Pro	Lys	Pro	Arg	Phe	Pro	Ala	Pro	Gln	Pro	Leu	Asp	Asn	Ala	Gly
				80					85					90
Leu	Phe	Ser	Tyr	Leu	Thr	Val	Ser	Trp	Leu	Thr	Pro	Leu	Met	Ile
				95					100					105
Gln	Ser	Leu	Arg	Ser	Arg	Leu	Asp	Glu	Asn	Thr	Ile	Pro	Pro	Leu
				110					115					120
Ser	Val	His	Asp	Ala	Ser	Asp	Lys	Asn	Val	Gln	Arg	Leu	His	Arg

125	130	135
Leu Trp Glu Glu Glu Val Ser Arg Arg Gly Ile Glu Lys Ala Ser		
140	145	150
Val Leu Leu Val Met Leu Arg Phe Gln Arg Thr Arg Leu Ile Phe		
155	160	165
Asp Ala Leu Leu Gly Ile Cys Phe Cys Ile Ala Ser Val Leu Gly		
170	175	180
Pro Ile Leu Ile Ile Pro Lys Ile Leu Glu Tyr Ser Glu Glu Gln		
185	190	195
Leu Gly Asn Val Val His Gly Val Gly Leu Cys Phe Ala Leu Phe		
200	205	210
Leu Ser Glu Cys Val Lys Ser Leu Ser Phe Ser Ser Ser Trp Ile		
215	220	225
Ile Asn Gln Arg Thr Ala Ile Arg Phe Arg Ala Ala Val Ser Ser		
230	235	240
Phe Ala Phe Glu Lys Leu Ile Gln Phe Lys Ser Val Ile His Ile		
245	250	255
Thr Ser Gly Glu Ala Ile Ser Phe Phe Thr Gly Asp Val Asn Tyr		
260	265	270
Leu Phe Glu Gly Val Cys Tyr Gly Pro Leu Val Leu Ile Thr Cys		
275	280	285
Ala Ser Leu Val Ile Cys Ser Ile Ser Ser Tyr Phe Ile Ile Gly		
290	295	300
Tyr Thr Ala Phe Ile Ala Ile Leu Cys Tyr Pro Leu Val Phe Pro		
305	310	315
Leu Glu Val Phe Met Thr Arg Met Ala Val Lys Ala Gln His His		
320	325	330
Thr Ser Glu Val Ser Asp Gln Arg Ile Arg Val Thr Ser Glu Val		
335	340	345
Leu Thr Cys Ile Lys Leu Ile Lys Met Tyr Thr Trp Glu Lys Pro		
350	355	360
Phe Ala Lys Ile Ile Glu Asp Leu Arg Arg Lys Glu Arg Lys Leu		
365	370	375
Leu Glu Lys Cys Gly Leu Val Gln Ser Leu Thr Ser Ile Thr Leu		
380	385	390
Phe Ile Ile Pro Ala Val Ala Thr Ala Val Trp Val Leu Ile His		
395	400	405
Thr Ser Leu Lys Leu Lys Leu Thr Ala Ser Met Ala Phe Ser Met		
410	415	420

Leu	Ala	Ser	Leu	Asn	Leu	Leu	Arg	Leu	Ser	Val	Phe	Phe	Val	Pro	425	430	435
Ile	Ala	Val	Lys	Gly	Leu	Thr	Asn	Ser	Lys	Ser	Ala	Val	Met	Arg	440	445	450
Phe	Lys	Lys	Phe	Phe	Leu	Gln	Glu	Ser	Pro	Val	Phe	Tyr	Val	Gln	455	460	465
Thr	Leu	Gln	Asp	Pro	Ser	Lys	Ala	Leu	Val	Phe	Glu	Glu	Ala	Thr	470	475	480
Leu	Ser	Trp	Gln	Gln	Thr	Cys	Pro	Gly	Ile	Val	Asn	Gly	Ala	Leu	485	490	495
Glu	Leu	Glu	Arg	Asn	Gly	His	Ala	Ser	Glu	Gly	Met	Thr	Arg	Pro	500	505	510
Arg	Asp	Ala	Leu	Gly	Pro	Glu	Glu	Glu	Gly	Asn	Ser	Leu	Gly	Pro	515	520	525
Glu	Leu	His	Lys	Ile	Asn	Leu	Val	Val	Ser	Lys	Gly	Met	Met	Leu	530	535	540
Gly	Val	Cys	Gly	Asn	Thr	Gly	Ser	Gly	Lys	Ser	Ser	Leu	Leu	Ser	545	550	555
Ala	Ile	Leu	Glu	Glu	Met	His	Leu	Leu	Glu	Gly	Ser	Val	Gly	Val	560	565	570
Gln	Gly	Ser	Leu	Ala	Tyr	Val	Pro	Gln	Gln	Ala	Trp	Ile	Val	Ser	575	580	585
Gly	Asn	Ile	Arg	Glu	Asn	Ile	Leu	Met	Gly	Gly	Ala	Tyr	Asp	Lys	590	595	600
Ala	Arg	Tyr	Leu	Gln	Val	Leu	His	Cys	Cys	Ser	Leu	Asn	Arg	Asp	605	610	615
Leu	Glu	Leu	Leu	Pro	Phe	Gly	Asp	Met	Thr	Glu	Ile	Gly	Glu	Arg	620	625	630
Gly	Pro	Asn	Leu	Ser	Gly	Gly	Gln	Lys	Gln	Arg	Ile	Ser	Leu	Ala	635	640	645
Arg	Ala	Val	Tyr	Ser	Asp	Arg	Gln	Ile	Tyr	Leu	Leu	Asp	Asp	Pro	650	655	660
Leu	Ser	Ala	Val	Asp	Ala	His	Val	Gly	Lys	His	Ile	Phe	Glu	Glu	665	670	675
Cys	Ile	Lys	Lys	Thr	Leu	Arg	Gly	Lys	Thr	Val	Val	Gln	Val	Thr	680	685	690
His	Gln	Leu	Gln	Tyr	Leu	Glu	Phe	Cys	Gly	Gln	Val	Ile	Leu	Leu	695	700	705
Glu	Asn	Gly	Lys	Ile	Cys	Glu	Asn	Gly	Thr	His	Ser	Glu	Leu	Met			

710	715	720
Gln Lys Lys Gly Lys Tyr Ala Gln Leu	Ile Gln Lys Met His Lys	
725	730	735
Glu Ala Thr Ser Asp Met Leu Gln Asp	Thr Ala Lys Ile Ala Glu	
740	745	750
Lys Pro Lys Val Glu Ser Gln Ala Leu	Ala Thr Ser Leu Glu Glu	
755	760	765
Ser Leu Asn Gly Asn Ala Val Pro Glu	His Gln Leu Thr Gln Glu	
770	775	780
Glu Glu Met Glu Glu Gly Ser Leu Ser	Trp Arg Val Tyr His His	
785	790	795
Tyr Ile Gln Ala Ala Gly Gly Tyr Met	Val Ser Cys Ile Ile Phe	
800	805	810
Phe Phe Val Val Leu Ile Val Phe Leu	Thr Ile Phe Ser Phe Trp	
815	820	825
Trp Leu Ser Tyr Trp Leu Glu Gln Gly	Ser Gly Thr Asn Ser Ser	
830	835	840
Arg Glu Ser Asn Gly Thr Met Ala Asp	Leu Gly Asn Ile Ala Asp	
845	850	855
Asn Pro Gln Leu Ser Phe Tyr Gln Leu	Val Tyr Gly Leu Asn Ala	
860	865	870
Leu Leu Leu Ile Cys Val Gly Val Cys	Ser Ser Gly Ile Phe Thr	
875	880	885
Lys Val Thr Arg Lys Ala Ser Thr Ala	Leu His Asn Lys Leu Phe	
890	895	900
Asn Lys Val Phe Arg Cys Pro Met Ser	Phe Phe Asp Thr Ile Pro	
905	910	915
Ile Gly Arg Leu Leu Asn Cys Phe Ala	Gly Asp Leu Glu Gln Leu	
920	925	930
Asp Gln Leu Leu Pro Ile Phe Ser Glu	Gln Phe Leu Val Leu Ser	
935	940	945
Leu Met Val Ile Ala Val Leu Leu Ile	Val Ser Val Leu Ser Pro	
950	955	960
Tyr Ile Leu Leu Met Gly Ala Ile Ile	Met Val Ile Cys Phe Ile	
965	970	975
Tyr Tyr Met Met Phe Lys Glu Ala Ile	Gly Val Phe Lys Arg Leu	
980	985	990
Glu Asn Tyr Ser Arg Ser Pro Leu Phe	Ser His Ile Leu Asn Ser	
995	1000	1005

Leu Gln Gly Leu Ser Ser Ile His Val Tyr Gly Lys Thr Glu Asp	1010	1015	1020
Phe Ile Ser Gln Phe Lys Arg Leu Thr Asp Ala Gln Asn Asn Tyr	1025	1030	1035
Leu Leu Leu Phe Leu Ser Ser Thr Arg Trp Met Ala Leu Arg Leu	1040	1045	1050
Glu Ile Met Thr Asn Leu Val Thr Leu Ala Val Ala Leu Phe Val	1055	1060	1065
Ala Phe Gly Ile Ser Ser Thr Pro Tyr Ser Phe Lys Val Met Ala	1070	1075	1080
Val Asn Ile Val Leu Gln Leu Ala Ser Ser Phe Gln Ala Thr Ala	1085	1090	1095
Arg Ile Gly Leu Glu Thr Glu Ala Gln Phe Thr Ala Val Glu Arg	1100	1105	1110
Ile Leu Gln Tyr Met Lys Met Cys Val Ser Glu Ala Pro Leu His	1115	1120	1125
Met Glu Gly Thr Ser Cys Pro Gln Gly Trp Pro Gln His Gly Glu	1130	1135	1140
Ile Ile Phe Gln Asp Tyr His Met Lys Tyr Arg Asp Asn Thr Pro	1145	1150	1155
Thr Val Leu His Gly Ile Asn Leu Thr Ile Arg Gly His Glu Val	1160	1165	1170
Val Gly Ile Val Gly Arg Thr Gly Ser Gly Lys Ser Ser Leu Gly	1175	1180	1185
Met Ala Leu Phe Arg Leu Val Glu Pro Met Ala Gly Arg Ile Leu	1190	1195	1200
Ile Asp Gly Val Asp Ile Cys Ser Ile Gly Leu Glu Asp Leu Arg	1205	1210	1215
Ser Lys Leu Ser Val Ile Pro Gln Asp Pro Val Leu Leu Ser Gly	1220	1225	1230
Thr Ile Arg Phe Asn Leu Asp Pro Phe Asp Arg His Thr Asp Gln	1235	1240	1245
Gln Ile Trp Asp Ala Leu Glu Arg Thr Phe Leu Thr Lys Ala Ile	1250	1255	1260
Ser Lys Phe Pro Lys Lys Leu His Thr Asp Val Val Glu Asn Gly	1265	1270	1275
Gly Asn Phe Ser Val Gly Glu Arg Gln Leu Leu Cys Ile Ala Arg	1280	1285	1290
Ala Val Leu Arg Asn Ser Lys Ile Ile Leu Ile Asp Glu Ala Thr			

1295	1300	1305
Ala Ser Ile Asp Met Glu Thr Asp Thr Leu Ile Gln Arg Thr Ile		
1310	1315	1320
Arg Glu Ala Phe Gln Gly Cys Thr Val Leu Val Ile Ala His Arg		
1325	1330	1335
Val Thr Thr Val Leu Asn Cys Asp Arg Ile Leu Val Met Gly Asn		
1340	1345	1350
Gly Lys Val Val Glu Phe Asp Arg Pro Glu Val Leu Arg Lys Lys		
1355	1360	1365
Pro Gly Ser Leu Phe Ala Ala Leu Met Ala Thr Ala Thr Ser Ser		
1370	1375	1380

Leu Arg

<210> 129

<211> 364

<212> PRT

<213> Homo sapien

<400> 129

Met Ser Val Met Val Val Arg Lys Lys Val Thr Arg Lys Trp Glu		
1	5	10
Lys Leu Pro Gly Arg Asn Thr Phe Cys Cys Asp Gly Arg Val Met		
20	25	30
Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile		
35	40	45
Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu		
50	55	60
Ala Val Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu		
65	70	75
Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser Asp		
80	85	90
Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile		
95	100	105
Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln		
110	115	120
Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile		
125	130	135
Val Lys Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro		
140	145	150
Arg Ala Ser His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe		
155	160	165

Asp	His	His	Cys	Pro	Trp	Val	Gly	Asn	Cys	Val	Gly	Lys	Arg	Asn	
				170					175					180	
Tyr	Arg	Tyr	Phe	Tyr	Leu	Phe	Ile	Leu	Ser	Leu	Ser	Leu	Leu	Thr	
				185					190					195	
Ile	Tyr	Val	Phe	Ala	Phe	Asn	Ile	Val	Tyr	Val	Ala	Leu	Lys	Ser	
				200					205					210	
Leu	Lys	Ile	Gly	Phe	Leu	Glu	Thr	Leu	Lys	Glu	Thr	Pro	Gly	Thr	
				215					220					225	
Val	Leu	Glu	Val	Leu	Ile	Cys	Phe	Phe	Thr	Leu	Trp	Ser	Val	Val	
				230					235					240	
Gly	Leu	Thr	Gly	Phe	His	Thr	Phe	Leu	Val	Ala	Leu	Asn	Gln	Thr	
				245					250					255	
Thr	Asn	Glu	Asp	Ile	Lys	Gly	Ser	Trp	Thr	Gly	Lys	Asn	Arg	Val	
				260					265					270	
Gln	Asn	Pro	Tyr	Ser	His	Gly	Asn	Ile	Val	Lys	Asn	Cys	Cys	Glu	
				275					280					285	
Val	Leu	Cys	Gly	Pro	Leu	Pro	Pro	Ser	Val	Leu	Asp	Arg	Arg	Gly	
				290					295					300	
Ile	Leu	Pro	Leu	Glu	Glu	Ser	Gly	Ser	Arg	Pro	Pro	Ser	Thr	Gln	
				305					310					315	
Glu	Thr	Ser	Ser	Ser	Leu	Leu	Pro	Gln	Ser	Pro	Ala	Pro	Thr	Glu	
				320					325					330	
His	Leu	Asn	Ser	Asn	Glu	Met	Pro	Glu	Asp	Ser	Ser	Thr	Pro	Glu	
				335					340					345	
Glu	Met	Pro	Pro	Pro	Glu	Pro	Pro	Glu	Pro	Pro	Gln	Glu	Ala	Ala	
				350					355					360	

Glu Ala Glu Lys

<210> 130
 <211> 204
 <212> PRT
 <213> Homo sapien

<400> 130
 Met Val Cys Gly Gly Phe Ala Cys Ser Lys Asn Cys Leu Cys Ala
 1 5 10 15
 Leu Asn Leu Leu Tyr Thr Leu Val Ser Leu Leu Leu Ile Gly Ile
 20 25 30
 Ala Ala Trp Gly Ile Gly Phe Gly Leu Ile Ser Ser Leu Arg Val
 35 40 45
 Val Gly Val Val Ile Ala Val Gly Ile Phe Leu Phe Leu Ile Ala

50	55	60
Leu Val Gly Leu Ile Gly Ala Val Lys His His Gln Val Leu Leu		
65	70	75
Phe Phe Tyr Met Ile Ile Leu Leu Leu Val Phe Ile Val Gln Phe		
80	85	90
Ser Val Ser Cys Ala Cys Leu Ala Leu Asn Gln Glu Gln Gln Gly		
95	100	105
Gln Leu Leu Glu Val Gly Trp Asn Asn Thr Ala Ser Ala Arg Asn		
110	115	120
Asp Ile Gln Arg Asn Leu Asn Cys Cys Gly Phe Arg Ser Val Asn		
125	130	135
Pro Asn Asp Thr Cys Leu Ala Ser Cys Val Lys Ser Asp His Ser		
140	145	150
Cys Ser Pro Cys Ala Pro Ile Ile Gly Glu Tyr Ala Gly Glu Val		
155	160	165
Leu Arg Phe Val Gly Gly Ile Gly Leu Phe Phe Ser Phe Thr Glu		
170	175	180
Ile Leu Gly Val Trp Leu Thr Tyr Arg Tyr Arg Asn Gln Lys Asp		
185	190	195
Pro Arg Ala Asn Pro Ser Ala Phe Leu		
200		

<210> 131
 <211> 359
 <212> PRT
 <213> Homo sapien

<400> 131

Met Lys Leu Gly Cys Val Leu Met Ala Trp Ala Leu Tyr Leu Ser		
1	5	10
Leu Gly Val Leu Trp Val Ala Gln Met Leu Leu Ala Ala Ser Phe		
20	25	30
Glu Thr Leu Gln Cys Glu Gly Pro Val Cys Thr Glu Glu Ser Ser		
35	40	45
Cys His Thr Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe		
50	55	60
Gln Val Lys Ala Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val		
65	70	75
Ser Tyr Asp Trp Leu Ile Leu Gln Gly Pro Ala Lys Pro Val Phe		
80	85	90
Glu Gly Asp Leu Leu Val Leu Arg Cys Gln Ala Trp Gln Asp Trp		
95	100	105

Pro	Leu	Thr	Gln	Val	Thr	Phe	Tyr	Arg	Asp	Gly	Ser	Ala	Leu	Gly	110	115	120
Pro	Pro	Gly	Pro	Asn	Arg	Glu	Phe	Ser	Ile	Thr	Val	Val	Gln	Lys	125	130	135
Ala	Asp	Ser	Gly	His	Tyr	His	Cys	Ser	Gly	Ile	Phe	Gln	Ser	Pro	140	145	150
Gly	Pro	Gly	Ile	Pro	Glu	Thr	Ala	Ser	Val	Val	Ala	Ile	Thr	Val	155	160	165
Gln	Glu	Leu	Phe	Pro	Ala	Pro	Ile	Leu	Arg	Ala	Val	Pro	Ser	Ala	170	175	180
Glu	Pro	Gln	Ala	Gly	Ser	Pro	Met	Thr	Leu	Ser	Cys	Gln	Thr	Lys	185	190	195
Leu	Pro	Leu	Gln	Arg	Ser	Ala	Ala	Arg	Leu	Leu	Phe	Ser	Phe	Tyr	200	205	210
Lys	Asp	Gly	Arg	Ile	Val	Gln	Ser	Arg	Gly	Leu	Ser	Ser	Glu	Phe	215	220	225
Gln	Ile	Pro	Thr	Ala	Ser	Glu	Asp	His	Ser	Gly	Ser	Tyr	Trp	Cys	230	235	240
Glu	Ala	Ala	Thr	Glu	Asp	Asn	Gln	Val	Trp	Lys	Gln	Ser	Pro	Gln	245	250	255
Leu	Glu	Ile	Arg	Val	Gln	Gly	Ala	Ser	Ser	Ser	Ala	Ala	Pro	Pro	260	265	270
Thr	Leu	Asn	Pro	Ala	Pro	Gln	Lys	Ser	Ala	Ala	Pro	Gly	Thr	Ala	275	280	285
Pro	Glu	Glu	Ala	Pro	Gly	Pro	Leu	Pro	Pro	Pro	Pro	Thr	Pro	Ser	290	295	300
Ser	Glu	Asp	Pro	Gly	Phe	Ser	Ser	Pro	Leu	Gly	Met	Pro	Asp	Pro	305	310	315
His	Leu	Tyr	His	Gln	Met	Gly	Leu	Leu	Leu	Lys	His	Met	Gln	Asp	320	325	330
Val	Arg	Val	Leu	Leu	Gly	His	Leu	Leu	Met	Glu	Leu	Arg	Glu	Leu	335	340	345
Ser	Gly	His	Gln	Lys	Pro	Gly	Thr	Thr	Lys	Ala	Thr	Ala	Glu		350	355	

<210> 132
 <211> 420
 <212> PRT
 <213> Homo sapien

 <400> 132
 Met Pro Gly Gly Cys Ser Arg Gly Pro Ala Ala Gly Asp Gly Arg

1	5	10	15
Leu Arg Leu Ala Arg	Leu Ala Leu Val	Leu Leu Gly Trp Val	Ser
20		25	30
Ser Ser Ser Pro Thr	Ser Ser Ala Ser	Ser Phe Ser Ser Ser	Ala
35		40	45
Pro Phe Leu Ala Ser	Ala Val Ser Ala	Gln Pro Pro Leu Pro	Asp
50		55	60
Gln Cys Pro Ala Leu	Cys Glu Cys Ser	Glu Ala Ala Arg Thr	Val
65		70	75
Lys Cys Val Asn Arg	Asn Leu Thr Glu	Val Pro Thr Asp Leu	Pro
80		85	90
Ala Tyr Val Arg Asn	Leu Phe Leu Thr	Gly Asn Gln Leu Ala	Val
95		100	105
Leu Pro Ala Gly Ala	Phe Ala Arg Arg	Pro Pro Leu Ala Glu	Leu
110		115	120
Ala Ala Leu Asn Leu	Ser Gly Ser Arg	Leu Asp Glu Val Arg	Ala
125		130	135
Gly Ala Phe Glu His	Leu Pro Ser Leu	Arg Gln Leu Asp Leu	Ser
140		145	150
His Asn Pro Leu Ala	Asp Leu Ser Pro	Phe Ala Phe Ser Gly	Ser
155		160	165
Asn Ala Ser Val Ser	Ala Pro Ser Pro	Leu Val Glu Leu Ile	Leu
170		175	180
Asn His Ile Val Pro	Pro Glu Asp Glu	Arg Gln Asn Arg Ser	Phe
185		190	195
Glu Gly Met Val Val	Ala Ala Leu Leu	Ala Gly Arg Ala Leu	Gln
200		205	210
Gly Leu Arg Arg Leu	Glu Leu Ala Ser	Asn His Phe Leu Tyr	Leu
215		220	225
Pro Arg Asp Val Leu	Ala Gln Leu Pro	Ser Leu Arg His Leu	Asp
230		235	240
Leu Ser Asn Asn Ser	Leu Val Ser Leu	Thr Tyr Val Ser Phe	Arg
245		250	255
Asn Leu Thr His Leu	Glu Ser Leu His	Leu Glu Asp Asn Ala	Leu
260		265	270
Lys Val Leu His Asn	Gly Thr Leu Ala	Glu Leu Gln Gly Leu	Pro
275		280	285
His Ile Arg Val Phe	Leu Asp Asn Asn	Pro Trp Val Cys Asp	Cys
290		295	300

His Met Ala Asp Met Val Thr Trp Leu Lys Glu Thr Glu Val Val	305	310	315
Gln Gly Lys Asp Arg Leu Thr Cys Ala Tyr Pro Glu Lys Met Arg	320	325	330
Asn Arg Val Leu Leu Glu Leu Asn Ser Ala Asp Leu Asp Cys Asp	335	340	345
Pro Ile Leu Pro Pro Ser Leu Gln Thr Ser Tyr Val Phe Leu Gly	350	355	360
Ile Val Leu Ala Leu Ile Gly Ala Ile Phe Leu Leu Val Leu Tyr	365	370	375
Leu Asn Arg Lys Gly Ile Lys Lys Trp Met His Asn Ile Arg Asp	380	385	390
Ala Cys Arg Asp His Met Glu Gly Tyr His Tyr Arg Tyr Glu Ile	395	400	405
Asn Ala Asp Pro Arg Leu Thr Asn Leu Ser Ser Asn Ser Asp Val	410	415	420
<210> 133			
<211> 314			
<212> PRT			
<213> Homo sapien			
<400> 133			
Met Ala Pro Pro Gln Val Leu Ala Phe Gly Leu Leu Leu Ala Ala	1	5	10 15
Ala Thr Ala Thr Phe Ala Ala Ala Gln Glu Glu Cys Val Cys Glu	20	25	30
Asn Tyr Lys Leu Ala Val Asn Cys Phe Val Asn Asn Asn Arg Gln	35	40	45
Cys Gln Cys Thr Ser Val Gly Ala Gln Asn Thr Val Ile Cys Ser	50	55	60
Lys Leu Ala Ala Lys Cys Leu Val Met Lys Ala Glu Met Asn Gly	65	70	75
Ser Lys Leu Gly Arg Arg Ala Lys Pro Glu Gly Ala Leu Gln Asn	80	85	90
Asn Asp Gly Leu Tyr Asp Pro Asp Cys Asp Glu Ser Gly Leu Phe	95	100	105
Lys Ala Lys Gln Cys Asn Gly Thr Ser Thr Cys Trp Cys Val Asn	110	115	120
Thr Ala Gly Val Arg Arg Thr Asp Lys Asp Thr Glu Ile Thr Cys	125	130	135
Ser Glu Arg Val Arg Thr Tyr Trp Ile Ile Ile Glu Leu Lys His			

140	145	150
Lys Ala Arg Glu Lys Pro Tyr Asp Ser Lys Ser Leu Arg Thr Ala		
155	160	165
Leu Gln Lys Glu Ile Thr Thr Arg Tyr Gln Leu Asp Pro Lys Phe		
170	175	180
Ile Thr Ser Ile Leu Tyr Glu Asn Asn Val Ile Thr Ile Asp Leu		
185	190	195
Val Gln Asn Ser Ser Gln Lys Thr Gln Asn Asp Val Asp Ile Ala		
200	205	210
Asp Val Ala Tyr Tyr Phe Glu Lys Asp Val Lys Gly Glu Ser Leu		
215	220	225
Phe His Ser Lys Lys Met Asp Leu Thr Val Asn Gly Glu Gln Leu		
230	235	240
Asp Leu Asp Pro Gly Gln Thr Leu Ile Tyr Tyr Val Asp Glu Lys		
245	250	255
Ala Pro Glu Phe Ser Met Gln Gly Leu Lys Ala Gly Val Ile Ala		
260	265	270
Val Ile Val Val Val Val Ile Ala Val Val Ala Gly Ile Val Val		
275	280	285
Leu Val Ile Ser Arg Lys Lys Arg Met Ala Lys Tyr Glu Lys Ala		
290	295	300
Glu Ile Lys Glu Met Gly Glu Met His Arg Glu Leu Asn Ala		
305	310	

<210> 134
 <211> 1092
 <212> PRT
 <213> Homo sapien

<400> 134
 Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His Leu Val
 1 5 10 15
 Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly Trp
 20 25 30
 Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro
 35 40 45
 Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val
 50 55 60
 Leu Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr
 65 70 75
 Leu Leu Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser Glu
 80 85 90

Pro	Ser	Ser	Glu	Gln	Gln	Leu	Cys	Ala	Leu	Ser	Lys	His	Pro	Thr	95	100	105
Val	Ala	Phe	Glu	Asp	Leu	Gln	Pro	Trp	Val	Ser	Asn	Phe	Thr	Tyr	110	115	120
Pro	Gly	Ala	Arg	Asp	Phe	Ser	Gln	Leu	Ala	Leu	Asp	Pro	Ser	Gly	125	130	135
Asn	Gln	Leu	Ile	Val	Gly	Ala	Arg	Asn	Tyr	Leu	Phe	Arg	Leu	Ser	140	145	150
Leu	Ala	Asn	Val	Ser	Leu	Leu	Gln	Ala	Thr	Glu	Trp	Ala	Ser	Ser	155	160	165
Glu	Asp	Thr	Arg	Arg	Ser	Cys	Gln	Ser	Lys	Gly	Lys	Thr	Glu	Glu	170	175	180
Glu	Cys	Gln	Asn	Tyr	Val	Arg	Val	Leu	Ile	Val	Ala	Gly	Arg	Lys	185	190	195
Val	Phe	Met	Cys	Gly	Thr	Asn	Ala	Phe	Ser	Pro	Met	Cys	Thr	Ser	200	205	210
Arg	Gln	Val	Gly	Asn	Leu	Ser	Arg	Thr	Ile	Glu	Lys	Ile	Asn	Gly	215	220	225
Val	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Arg	His	Asn	Ser	Thr	Ala	Val	230	235	240
Ile	Ser	Ser	Gln	Gly	Glu	Leu	Tyr	Ala	Ala	Thr	Val	Ile	Asp	Phe	245	250	255
Ser	Gly	Arg	Asp	Pro	Ala	Ile	Tyr	Arg	Ser	Leu	Gly	Ser	Gly	Pro	260	265	270
Pro	Leu	Arg	Thr	Ala	Gln	Tyr	Asn	Ser	Lys	Trp	Leu	Asn	Glu	Pro	275	280	285
Asn	Phe	Val	Ala	Ala	Tyr	Asp	Ile	Gly	Leu	Phe	Ala	Tyr	Phe	Phe	290	295	300
Leu	Arg	Glu	Asn	Ala	Val	Glu	His	Asp	Cys	Gly	Arg	Thr	Val	Tyr	305	310	315
Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	Val	Gly	Gly	Arg	Phe	320	325	330
Leu	Leu	Glu	Asp	Thr	Trp	Thr	Thr	Phe	Met	Lys	Ala	Arg	Leu	Asn	335	340	345
Cys	Ser	Arg	Pro	Gly	Glu	Val	Pro	Phe	Tyr	Tyr	Asn	Glu	Leu	Gln	350	355	360
Ser	Ala	Phe	His	Leu	Pro	Glu	Gln	Asp	Leu	Ile	Tyr	Gly	Val	Phe	365	370	375
Thr	Thr	Asn	Val	Asn	Ser	Ile	Ala	Ala	Ser	Ala	Val	Cys	Ala	Phe			

380	385	390
Asn Leu Ser Ala Ile Ser Gln Ala Phe	Asn Gly Pro Phe Arg Tyr	
395	400	405
Gln Glu Asn Pro Arg Ala Ala Trp Leu	Pro Ile Ala Asn Pro Ile	
410	415	420
Pro Asn Phe Gln Cys Gly Thr Leu Pro	Glu Thr Gly Pro Asn Glu	
425	430	435
Asn Leu Thr Glu Arg Ser Leu Gln Asp	Ala Gln Arg Leu Phe Leu	
440	445	450
Met Ser Glu Ala Val Gln Pro Val Thr	Pro Glu Pro Cys Val Thr	
455	460	465
Gln Asp Ser Val Arg Phe Ser His Leu	Val Val Asp Leu Val Gln	
470	475	480
Ala Lys Asp Thr Leu Tyr His Val Leu	Tyr Ile Gly Thr Glu Ser	
485	490	495
Gly Thr Ile Leu Lys Ala Leu Ser Thr	Ala Ser Arg Ser Leu His	
500	505	510
Gly Cys Tyr Leu Glu Glu Leu His Val	Leu Pro Pro Gly Arg Arg	
515	520	525
Glu Pro Leu Arg Ser Leu Arg Ile Leu	His Ser Ala Arg Ala Leu	
530	535	540
Phe Val Gly Leu Arg Asp Gly Val Leu	Arg Val Pro Leu Glu Arg	
545	550	555
Cys Ala Ala Tyr Arg Ser Gln Gly Ala	Cys Leu Gly Ala Arg Asp	
560	565	570
Pro Tyr Cys Gly Trp Asp Gly Lys Gln	Gln Arg Cys Ser Thr Leu	
575	580	585
Glu Asp Ser Ser Asn Met Ser Leu Trp	Thr Gln Asn Ile Thr Ala	
590	595	600
Cys Pro Val Arg Asn Val Thr Arg Asp	Gly Gly Phe Gly Pro Trp	
605	610	615
Ser Pro Trp Gln Pro Cys Glu His Leu	Asp Gly Asp Asn Ser Gly	
620	625	630
Ser Cys Leu Cys Arg Ala Arg Ser Cys	Asp Ser Pro Arg Pro Arg	
635	640	645
Cys Gly Gly Leu Asp Cys Leu Gly Pro	Ala Ile His Ile Ala Asn	
650	655	660
Cys Ser Arg Asn Gly Ala Trp Thr Pro	Trp Ser Ser Trp Ala Leu	
665	670	675

Cys Ser Thr Ser	Cys Gly Ile Gly Phe	Gln Val Arg Gln Arg	Ser
680		685	690
Cys Ser Asn Pro	Ala Pro Arg His Gly	Gly Arg Ile Phe Val	Gly
695		700	705
Lys Ser Arg Glu	Glu Arg Phe Cys Asn	Glu Asn Thr Pro Cys	Pro
710		715	720
Val Pro Ile Phe	Trp Ala Ser Trp Gly	Ser Trp Ser Lys Cys	Ser
725		730	735
Ser Asn Cys Gly	Gly Gly Met Gln Ser	Arg Arg Arg Ala Cys	Glu
740		745	750
Asn Gly Asn Ser	Cys Leu Gly Cys Gly	Glu Phe Lys Thr Cys	Asn
755		760	765
Pro Glu Gly Cys	Pro Glu Val Arg Arg	Asn Thr Pro Trp Thr	Pro
770		775	780
Trp Leu Pro Val	Asn Val Thr Gln Gly	Gly Ala Arg Gln Glu	Gln
785		790	795
Arg Phe Arg Phe	Thr Cys Arg Ala Pro	Leu Ala Asp Pro His	Gly
800		805	810
Leu Gln Phe Gly	Arg Arg Arg Thr Glu	Thr Arg Thr Cys Pro	Ala
815		820	825
Asp Gly Ser Gly	Ser Cys Asp Thr Asp	Ala Leu Val Glu Val	Leu
830		835	840
Leu Arg Ser Gly	Ser Thr Ser Pro His	Thr Val Ser Gly Gly	Trp
845		850	855
Ala Ala Trp Gly	Pro Trp Ser Ser Cys	Ser Arg Asp Cys Glu	Leu
860		865	870
Gly Phe Arg Val	Arg Lys Arg Thr Cys	Thr Asn Pro Glu Pro	Arg
875		880	885
Asn Gly Gly Leu	Pro Cys Val Gly Asp	Ala Ala Glu Tyr Gln	Asp
890		895	900
Cys Asn Pro Gln	Ala Cys Pro Val Arg	Gly Ala Trp Ser Cys	Trp
905		910	915
Thr Ser Trp Ser	Pro Cys Ser Ala Ser	Cys Gly Gly Gly His	Tyr
920		925	930
Gln Arg Thr Arg	Ser Cys Thr Ser Pro	Ala Pro Ser Pro Gly	Glu
935		940	945
Asp Ile Cys Leu	Gly Leu His Thr Glu	Glu Ala Leu Cys Ala	Thr
950		955	960
Gln Ala Cys Pro	Gly Trp Ser Pro Trp	Ser Glu Trp Ser Lys	Cys

965	970	975
Thr Asp Asp Gly Ala Gln Ser Arg Ser Arg	His Cys Glu Glu Leu	
980	985	990
Leu Pro Gly Ser Ser Ala Cys Ala Gly Asn Ser Ser Gln Ser Arg		
995	1000	1005
Pro Cys Pro Tyr Ser Glu Ile Pro Val Ile Leu Pro Ala Ser Ser		
1010	1015	1020
Met Glu Glu Ala Thr Asp Cys Ala Gly Lys Arg Asn Arg Thr Tyr		
1025	1030	1035
Leu Met Leu Arg Ser Ser Gln Pro Ser Ser Thr Pro Leu Gln Ser		
1040	1045	1050
Leu Asp Ser Phe His Ile Leu Leu Gln Thr Ala Lys Leu Cys Trp		
1055	1060	1065
Gly Pro His Cys Phe Glu Met Gly Ser Ile Ser Ser Thr Trp Trp		
1070	1075	1080
Pro Arg Ala Ser Pro Ala Ser Trp Ala Leu Gly Ser		
1085	1090	
<210> 135		
<211> 260		
<212> PRT		
<213> Homo sapien		
<400> 135		
Met Ala Lys Asp Asn Ser Thr Val Arg Cys Phe Gln Gly Leu Leu		
1	5	10
Ile Phe Gly Asn Val Ile Ile Gly Cys Cys Gly Ile Ala Leu Thr		
20	25	30
Ala Glu Cys Ile Phe Phe Val Ser Asp Gln His Ser Leu Tyr Pro		
35	40	45
Leu Leu Glu Ala Thr Asp Asn Asp Asp Ile Tyr Gly Ala Ala Trp		
50	55	60
Ile Gly Ile Phe Val Gly Ile Cys Leu Phe Cys Leu Ser Val Leu		
65	70	75
Gly Ile Val Gly Ile Met Lys Ser Ser Arg Lys Ile Leu Leu Ala		
80	85	90
Tyr Phe Ile Leu Met Phe Ile Val Tyr Ala Phe Glu Val Ala Ser		
95	100	105
Cys Ile Thr Ala Ala Thr Gln Gln Asp Phe Phe Thr Pro Asn Leu		
110	115	120
Phe Leu Lys Gln Met Leu Glu Arg Tyr Gln Asn Asn Ser Pro Pro		
125	130	135

Asn	Asn	Asp	Asp	Gln	Trp	Lys	Asn	Asn	Gly	Val	Thr	Lys	Thr	Trp
				140					145					150
Asp	Arg	Leu	Met	Leu	Gln	Asp	Asn	Cys	Cys	Gly	Val	Asn	Gly	Pro
				155					160					165
Ser	Asp	Trp	Gln	Lys	Tyr	Thr	Ser	Ala	Phe	Arg	Thr	Glu	Asn	Asn
				170					175					180
Asp	Ala	Asp	Tyr	Pro	Trp	Pro	Arg	Gln	Cys	Cys	Val	Met	Asn	Asn
				185					190					195
Leu	Lys	Glu	Pro	Leu	Asn	Leu	Glu	Ala	Cys	Lys	Leu	Gly	Val	Pro
				200					205					210
Gly	Phe	Tyr	His	Asn	Gln	Gly	Cys	Tyr	Glu	Leu	Ile	Ser	Gly	Pro
				215					220					225
Met	Asn	Arg	His	Ala	Trp	Gly	Val	Ala	Trp	Phe	Gly	Phe	Ala	Ile
				230					235					240
Leu	Cys	Trp	Thr	Phe	Trp	Val	Leu	Leu	Gly	Thr	Met	Phe	Tyr	Trp
				245					250					255
Ser	Arg	Ile	Glu	Tyr										
				260										

<210> 136
 <211> 289
 <212> PRT
 <213> Homo sapien

<400> 136

Met	Phe	Asp	Lys	Thr	Arg	Leu	Pro	Tyr	Val	Ala	Leu	Asp	Val	Leu
1				5					10					15
Cys	Val	Leu	Leu	Ala	Gly	Leu	Pro	Phe	Ala	Ile	Phe	Thr	Ser	Arg
				20					25					30
His	Ile	Thr	Ser	Arg	His	Thr	Pro	Phe	Gln	Arg	Gly	Val	Phe	Cys
				35					40					45
Asn	Asp	Glu	Ser	Ile	Lys	Tyr	Pro	Tyr	Lys	Glu	Asp	Thr	Ile	Pro
				50					55					60
Tyr	Ala	Leu	Leu	Gly	Gly	Ile	Ile	Ile	Pro	Phe	Ser	Ile	Ile	Val
				65					70					75
Ile	Ile	Leu	Gly	Glu	Thr	Leu	Ser	Val	Tyr	Cys	Asn	Leu	Leu	His
				80					85					90
Ser	Asn	Ser	Phe	Ile	Arg	Asn	Asn	Tyr	Ile	Ala	Thr	Ile	Tyr	Lys
				95					100					105
Ala	Ile	Gly	Thr	Phe	Leu	Phe	Gly	Ala	Ala	Ala	Ser	Gln	Ser	Leu
				110					115					120
Thr	Asp	Ile	Ala	Lys	Tyr	Ser	Ile	Gly	Arg	Leu	Arg	Pro	His	Phe

	125		130		135
Leu Asp Val Cys Asp Pro Asp Trp Ser Lys Ile Asn Cys Ser Asp	140		145		150
Gly Tyr Ile Glu Tyr Tyr Ile Cys Arg Gly Asn Ala Glu Arg Val	155		160		165
Lys Glu Gly Arg Leu Ser Phe Tyr Ser Gly His Ser Ser Phe Ser	170		175		180
Met Tyr Cys Met Leu Phe Val Ala Leu Tyr Leu Gln Ala Arg Met	185		190		195
Lys Gly Asp Trp Ala Arg Leu Leu Arg Pro Thr Leu Gln Phe Gly	200		205		210
Leu Val Ala Val Ser Ile Tyr Val Gly Leu Ser Arg Val Ser Asp	215		220		225
Tyr Lys His His Trp Ser Asp Val Leu Thr Gly Leu Ile Gln Gly	230		235		240
Ala Leu Val Ala Ile Leu Val Ala Val Tyr Val Ser Asp Phe Phe	245		250		255
Lys Glu Arg Thr Ser Phe Lys Glu Arg Lys Glu Glu Asp Ser His	260		265		270
Thr Thr Leu His Glu Thr Pro Thr Thr Gly Asn His Tyr Pro Ser	275		280		285

Asn His Gln Pro

<210> 137
 <211> 734
 <212> PRT
 <213> Homo sapien

<400> 137
 Met Leu Leu Trp Leu Leu Leu Leu Ile Leu Thr Pro Gly Arg Glu
 1 5 10 15
 Gln Ser Gly Val Ala Pro Lys Ala Val Leu Leu Leu Asn Pro Pro
 20 25 30
 Trp Ser Thr Ala Phe Lys Gly Glu Lys Val Ala Leu Ile Cys Ser
 35 40 45
 Ser Ile Ser His Ser Leu Ala Gln Gly Asp Thr Tyr Trp Tyr His
 50 55 60
 Asp Glu Lys Leu Leu Lys Ile Lys His Asp Lys Ile Gln Ile Thr
 65 70 75
 Glu Pro Gly Asn Tyr Gln Cys Lys Thr Arg Gly Ser Ser Leu Ser
 80 85 90

Asp	Ala	Val	His	Val	Glu	Phe	Ser	Pro	Asp	Trp	Leu	Ile	Leu	Gln	95	100	105
Ala	Leu	His	Pro	Val	Phe	Glu	Gly	Asp	Asn	Val	Ile	Leu	Arg	Cys	110	115	120
Gln	Gly	Lys	Asp	Asn	Lys	Asn	Thr	His	Gln	Lys	Val	Tyr	Tyr	Lys	125	130	135
Asp	Gly	Lys	Gln	Leu	Pro	Asn	Ser	Tyr	Asn	Leu	Glu	Lys	Ile	Thr	140	145	150
Val	Asn	Ser	Val	Ser	Arg	Asp	Asn	Ser	Lys	Tyr	His	Cys	Thr	Ala	155	160	165
Tyr	Arg	Lys	Phe	Tyr	Ile	Leu	Asp	Ile	Glu	Val	Thr	Ser	Lys	Pro	170	175	180
Leu	Asn	Ile	Gln	Val	Gln	Glu	Leu	Phe	Leu	His	Pro	Val	Leu	Arg	185	190	195
Ala	Ser	Ser	Ser	Thr	Pro	Ile	Glu	Gly	Ser	Pro	Met	Thr	Leu	Thr	200	205	210
Cys	Glu	Thr	Gln	Leu	Ser	Pro	Gln	Arg	Pro	Asp	Val	Gln	Leu	Gln	215	220	225
Phe	Ser	Leu	Phe	Arg	Asp	Ser	Gln	Thr	Leu	Gly	Leu	Gly	Trp	Ser	230	235	240
Arg	Ser	Pro	Arg	Leu	Gln	Ile	Pro	Ala	Met	Trp	Thr	Glu	Asp	Ser	245	250	255
Gly	Ser	Tyr	Trp	Cys	Glu	Val	Glu	Thr	Val	Thr	His	Ser	Ile	Lys	260	265	270
Lys	Arg	Ser	Leu	Arg	Ser	Gln	Ile	Arg	Val	Gln	Arg	Val	Pro	Val	275	280	285
Ser	Asn	Val	Asn	Leu	Glu	Ile	Arg	Pro	Thr	Gly	Gly	Gln	Leu	Ile	290	295	300
Glu	Gly	Glu	Asn	Met	Val	Leu	Ile	Cys	Ser	Val	Ala	Gln	Gly	Ser	305	310	315
Gly	Thr	Val	Thr	Phe	Ser	Trp	His	Lys	Glu	Gly	Arg	Val	Arg	Ser	320	325	330
Leu	Gly	Arg	Lys	Thr	Gln	Arg	Ser	Leu	Leu	Ala	Glu	Leu	His	Val	335	340	345
Leu	Thr	Val	Lys	Glu	Ser	Asp	Ala	Gly	Arg	Tyr	Tyr	Cys	Ala	Ala	350	355	360
Asp	Asn	Val	His	Ser	Pro	Ile	Leu	Ser	Thr	Trp	Ile	Arg	Val	Thr	365	370	375
Val	Arg	Ile	Pro	Val	Ser	His	Pro	Val	Leu	Thr	Phe	Arg	Ala	Pro			

380	385	390
Arg Ala His Thr Val Val Gly Asp Leu	Leu Glu Leu His Cys Glu	
395	400	405
Ser Leu Arg Gly Ser Pro Pro Ile Leu	Tyr Arg Phe Tyr His Glu	
410	415	420
Asp Val Thr Leu Gly Asn Ser Ser Ala	Pro Ser Gly Gly Gly Ala	
425	430	435
Ser Phe Asn Leu Ser Leu Thr Ala Glu	His Ser Gly Asn Tyr Ser	
440	445	450
Cys Asp Ala Asp Asn Gly Leu Gly Ala	Gln His Ser His Gly Val	
455	460	465
Ser Leu Arg Val Thr Val Pro Val Ser	Arg Pro Val Leu Thr Leu	
470	475	480
Arg Ala Pro Gly Ala Gln Ala Val Val	Gly Asp Leu Leu Glu Leu	
485	490	495
His Cys Glu Ser Leu Arg Gly Ser Phe	Pro Ile Leu Tyr Trp Phe	
500	505	510
Tyr His Glu Asp Asp Thr Leu Gly Asn	Ile Ser Ala His Ser Gly	
515	520	525
Gly Gly Ala Ser Phe Asn Leu Ser Leu	Thr Thr Glu His Ser Gly	
530	535	540
Asn Tyr Ser Cys Glu Ala Asp Asn Gly	Leu Gly Ala Gln His Ser	
545	550	555
Lys Val Val Thr Leu Asn Val Thr Gly	Thr Ser Arg Asn Arg Thr	
560	565	570
Gly Leu Thr Ala Ala Gly Ile Thr Gly	Leu Val Leu Ser Ile Leu	
575	580	585
Val Leu Ala Ala Ala Ala Ala Leu Leu	His Tyr Ala Arg Ala Arg	
590	595	600
Arg Lys Pro Gly Gly Leu Ser Ala Thr	Gly Thr Ser Ser His Ser	
605	610	615
Pro Ser Glu Cys Gln Glu Pro Ser Ser	Ser Arg Pro Ser Arg Ile	
620	625	630
Asp Pro Gln Glu Pro Thr His Ser Lys	Pro Leu Ala Pro Met Glu	
635	640	645
Leu Glu Pro Met Tyr Ser Asn Val Asn	Pro Gly Asp Ser Asn Pro	
650	655	660
Ile Tyr Ser Gln Ile Trp Ser Ile Gln	His Thr Lys Glu Asn Ser	
665	670	675

Ala	Asn	Cys	Pro	Met	Met	His	Gln	Glu	His	Glu	Glu	Leu	Thr	Val
				680					685					690
Leu	Tyr	Ser	Glu	Leu	Lys	Lys	Thr	His	Pro	Asp	Asp	Ser	Ala	Gly
				695					700					705
Glu	Ala	Ser	Ser	Arg	Gly	Arg	Ala	His	Glu	Glu	Asp	Asp	Glu	Glu
				710					715					720
Asn	Tyr	Glu	Asn	Val	Pro	Arg	Val	Leu	Leu	Ala	Ser	Asp	His	
				725					730					

<210> 138
 <211> 251
 <212> PRT
 <213> Homo sapien

<400> 138

Met	Glu	Gly	Gly	Ala	Ala	Ala	Ala	Thr	Pro	Thr	Ala	Leu	Pro	Tyr
1				5					10					15
Tyr	Val	Ala	Phe	Ser	Gln	Leu	Leu	Gly	Leu	Thr	Leu	Val	Ala	Met
				20					25					30
Thr	Gly	Ala	Trp	Leu	Gly	Leu	Tyr	Arg	Gly	Gly	Ile	Ala	Trp	Glu
				35					40					45
Ser	Asp	Leu	Gln	Phe	Asn	Ala	His	Pro	Leu	Cys	Met	Val	Ile	Gly
				50					55					60
Leu	Ile	Phe	Leu	Gln	Gly	Asn	Ala	Leu	Leu	Val	Tyr	Arg	Val	Phe
				65					70					75
Arg	Asn	Glu	Ala	Lys	Arg	Thr	Thr	Lys	Val	Leu	His	Gly	Leu	Leu
				80					85					90
His	Ile	Phe	Ala	Leu	Val	Ile	Ala	Leu	Val	Gly	Leu	Val	Ala	Val
				95					100					105
Phe	Asp	Tyr	His	Arg	Lys	Lys	Gly	Tyr	Ala	Asp	Leu	Tyr	Ser	Leu
				110					115					120
His	Ser	Trp	Cys	Gly	Ile	Leu	Val	Phe	Val	Leu	Tyr	Phe	Val	Gln
				125					130					135
Trp	Leu	Val	Gly	Phe	Ser	Phe	Phe	Leu	Phe	Pro	Gly	Ala	Ser	Phe
				140					145					150
Ser	Leu	Arg	Ser	Arg	Tyr	Arg	Pro	Gln	His	Ile	Phe	Phe	Gly	Ala
				155					160					165
Thr	Ile	Phe	Leu	Leu	Pro	Val	Gly	Thr	Ala	Leu	Leu	Gly	Leu	Lys
				170					175					180
Glu	Ala	Leu	Leu	Phe	Asn	Leu	Gly	Gly	Lys	Tyr	Ser	Ala	Phe	Glu
				185					190					195
Pro	Glu	Gly	Val	Leu	Ala	Asn	Val	Leu	Gly	Leu	Leu	Leu	Ala	Cys

200	205	210
Phe Gly Gly Ala Val Leu Tyr Ile Leu Thr Arg Ala Asp Trp Lys		
215	220	225
Arg Pro Ser Gln Ala Glu Glu Gln Ala Leu Ser Met Asp Phe Lys		
230	235	240
Thr Leu Arg Gln Gly Asp Ser Pro Gly Ser Gln		
245	250	
<210> 139		
<211> 391		
<212> PRT		
<213> Homo sapien		
<400> 139		
Met Arg Gln Leu Cys Arg Gly Arg Val Leu Gly Ile Ser Val Ala		
1	5	10
Ile Ala His Gly Val Phe Ser Gly Ser Leu Asn Ile Leu Leu Lys		
20	25	30
Phe Leu Ile Ser Arg Tyr Gln Phe Ser Phe Leu Thr Leu Val Gln		
35	40	45
Cys Leu Thr Ser Ser Thr Ala Ala Leu Ser Leu Glu Leu Leu Arg		
50	55	60
Arg Leu Gly Leu Ile Ala Val Pro Pro Phe Gly Leu Ser Leu Ala		
65	70	75
Arg Ser Phe Ala Gly Val Ala Val Leu Ser Thr Leu Gln Ser Ser		
80	85	90
Leu Thr Leu Trp Ser Leu Arg Gly Leu Ser Leu Pro Met Tyr Val		
95	100	105
Val Phe Lys Arg Cys Leu Pro Leu Val Thr Met Leu Ile Gly Val		
110	115	120
Leu Val Leu Lys Asn Gly Ala Pro Ser Pro Gly Val Leu Ala Ala		
125	130	135
Val Leu Ile Thr Thr Cys Gly Ala Ala Leu Ala Gly Ala Gly Asp		
140	145	150
Leu Thr Gly Asp Pro Ile Gly Tyr Val Thr Gly Val Leu Ala Val		
155	160	165
Leu Val His Ala Ala Tyr Leu Val Leu Ile Gln Lys Ala Ser Ala		
170	175	180
Asp Thr Glu His Gly Pro Leu Thr Ala Gln Tyr Val Ile Ala Val		
185	190	195
Ser Ala Thr Pro Leu Leu Val Ile Cys Ser Phe Ala Ser Thr Asp		
200	205	210

Ser	Ile	His	Ala	Trp	Thr	Phe	Pro	Gly	Trp	Lys	Asp	Pro	Ala	Met	
				215					220					225	
Val	Cys	Ile	Phe	Val	Ala	Cys	Ile	Leu	Ile	Gly	Cys	Ala	Met	Asn	
				230					235					240	
Phe	Thr	Thr	Leu	His	Cys	Thr	Tyr	Ile	Asn	Ser	Ala	Val	Thr	Thr	
				245					250					255	
Ser	Leu	Phe	Ile	Ala	Gly	Val	Val	Val	Asn	Thr	Leu	Gly	Ser	Ile	
				260					265					270	
Ile	Tyr	Cys	Val	Ala	Lys	Phe	Met	Glu	Thr	Arg	Lys	Gln	Ser	Asn	
				275					280					285	
Tyr	Glu	Asp	Leu	Glu	Ala	Gln	Pro	Arg	Gly	Glu	Glu	Ala	Gln	Leu	
				290					295					300	
Ser	Gly	Asp	Gln	Leu	Pro	Phe	Val	Met	Glu	Glu	Leu	Pro	Gly	Glu	
				305					310					315	
Gly	Gly	Asn	Gly	Arg	Ser	Glu	Gly	Gly	Glu	Ala	Ala	Gly	Gly	Pro	
				320					325					330	
Ala	Gln	Glu	Ser	Arg	Gln	Glu	Val	Arg	Gly	Ser	Pro	Arg	Gly	Val	
				335					340					345	
Pro	Leu	Val	Ala	Gly	Ser	Ser	Glu	Glu	Gly	Ser	Arg	Arg	Ser	Leu	
				350					355					360	
Lys	Asp	Ala	Tyr	Leu	Glu	Val	Trp	Arg	Leu	Val	Arg	Gly	Thr	Arg	
				365					370					375	
Tyr	Met	Lys	Lys	Asp	Tyr	Leu	Ile	Glu	Asn	Glu	Glu	Leu	Pro	Ser	
				380					385					390	

Pro

<210> 140
 <211> 229
 <212> PRT
 <213> Homo sapien

<400> 140
 Met Ala Arg Leu Ala Leu Ser Pro Val Pro Ser His Trp Met Val
 1 5 10 15
 Ala Leu Leu Leu Leu Leu Ser Ala Glu Pro Val Pro Ala Ala Arg
 20 25 30
 Ser Glu Asp Arg Tyr Arg Asn Pro Lys Gly Ser Ala Cys Ser Arg
 35 40 45
 Ile Trp Gln Ser Pro Arg Phe Ile Ala Arg Lys Arg Gly Phe Thr
 50 55 60
 Val Lys Met His Cys Tyr Met Asn Ser Ala Ser Gly Asn Val Ser

	65		70		75
Trp Leu Trp Lys Gln Glu Met Asp Glu Asn Pro Gln Gln Leu Lys	80		85		90
Leu Glu Lys Gly Arg Met Glu Glu Ser Gln Asn Glu Ser Leu Ala	95		100		105
Thr Leu Thr Ile Gln Gly Ile Arg Phe Glu Asp Asn Gly Ile Tyr	110		115		120
Phe Cys Gln Gln Lys Cys Asn Asn Thr Ser Glu Val Tyr Gln Gly	125		130		135
Cys Gly Thr Glu Leu Arg Val Met Gly Phe Ser Thr Leu Ala Gln	140		145		150
Leu Lys Gln Arg Asn Thr Leu Lys Asp Gly Ile Ile Met Ile Gln	155		160		165
Thr Leu Leu Ile Ile Leu Phe Ile Ile Val Pro Ile Phe Leu Leu	170		175		180
Leu Asp Lys Asp Asp Ser Lys Ala Gly Met Glu Glu Asp His Thr	185		190		195
Tyr Glu Gly Leu Asp Ile Asp Gln Thr Ala Thr Tyr Glu Asp Ile	200		205		210
Val Thr Leu Arg Thr Gly Glu Val Lys Trp Ser Val Gly Glu His	215		220		225
Pro Gly Gln Glu					

<210> 141
 <211> 699
 <212> PRT
 <213> Homo sapien

<400> 141
 Met Gly Leu Pro Glu Pro Gly Pro Leu Arg Leu Leu Ala Leu Leu
 1 5 10 15
 Leu Leu Leu Leu Leu Leu Leu Leu Leu Arg Leu Gln His Leu Ala
 20 25 30
 Ala Ala Ala Ala Asp Pro Leu Leu Gly Gly Gln Gly Pro Ala Lys
 35 40 45
 Glu Cys Glu Lys Asp Gln Phe Gln Cys Arg Asn Glu Arg Cys Ile
 50 55 60
 Pro Ser Val Trp Arg Cys Asp Glu Asp Asp Asp Cys Leu Asp His
 65 70 75
 Ser Asp Glu Asp Asp Cys Pro Lys Lys Thr Cys Ala Asp Ser Asp
 80 85 90

Phe Thr Cys Asp Asn Gly His Cys Ile	His Glu Arg Trp Lys Cys	95	100	105
Asp Gly Glu Glu Glu Cys Pro Asp Gly	Ser Asp Glu Ser Glu Ala	110	115	120
Thr Cys Thr Lys Gln Val Cys Pro Ala	Glu Lys Leu Ser Cys Gly	125	130	135
Pro Thr Ser His Lys Cys Val Pro Ala	Ser Trp Arg Cys Asp Gly	140	145	150
Glu Lys Asp Cys Glu Gly Gly Ala Asp	Glu Ala Gly Cys Ala Thr	155	160	165
Ser Leu Gly Thr Cys Arg Gly Asp Glu	Phe Gln Cys Gly Asp Gly	170	175	180
Thr Cys Val Leu Ala Ile Lys His Cys	Asn Gln Glu Gln Asp Cys	185	190	195
Pro Asp Gly Ser Asp Glu Ala Gly Cys	Leu Gln Gly Leu Asn Glu	200	205	210
Cys Leu His Asn Asn Gly Gly Cys Ser	His Ile Cys Thr Asp Leu	215	220	225
Lys Ile Gly Phe Glu Cys Thr Cys Pro	Ala Gly Phe Gln Leu Leu	230	235	240
Asp Gln Lys Thr Cys Gly Asp Ile Asp	Glu Cys Lys Asp Pro Asp	245	250	255
Ala Cys Ser Gln Ile Cys Val Asn Tyr	Lys Gly Tyr Phe Lys Cys	260	265	270
Glu Cys Tyr Pro Gly Cys Glu Met Asp	Leu Leu Thr Lys Asn Cys	275	280	285
Lys Ala Ala Ala Gly Lys Ser Pro Ser	Leu Ile Phe Thr Asn Arg	290	295	300
Thr Ser Ala Glu Asp Arg Pro Val Lys	Arg Asn Tyr Ser Arg Leu	305	310	315
Ile Pro Met Leu Lys Asn Val Val Ala	Leu Asp Val Glu Val Ala	320	325	330
Thr Asn Arg Ile Tyr Trp Cys Asp Leu	Ser Tyr Arg Lys Ile Tyr	335	340	345
Ser Ala Tyr Met Asp Lys Ala Ser Asp	Pro Lys Glu Arg Glu Val	350	355	360
Leu Ile Asp Glu Gln Leu His Ser Pro	Glu Gly Leu Ala Val Asp	365	370	375
Trp Val His Lys His Ile Tyr Trp Thr	Asp Ser Gly Asn Lys Thr			

380										385					390				
Ile	Ser	Val	Ala	Thr	Val	Asp	Gly	Gly	Arg	Arg	Arg	Arg	Thr	Leu	Phe				
				395					400						405				
Ser	Arg	Asn	Leu	Ser	Glu	Pro	Arg	Ala	Ile	Ala	Val	Asp	Pro	Leu					
				410					415						420				
Arg	Gly	Phe	Met	Tyr	Trp	Ser	Asp	Trp	Gly	Asp	Gln	Ala	Lys	Ile					
				425					430						435				
Glu	Lys	Ser	Gly	Leu	Asn	Gly	Val	Asp	Arg	Gln	Thr	Leu	Val	Ser					
				440					445						450				
Asp	Asn	Ile	Glu	Trp	Pro	Asn	Gly	Ile	Thr	Leu	Asp	Leu	Leu	Ser					
				455					460						465				
Gln	Arg	Leu	Tyr	Trp	Val	Asp	Ser	Lys	Leu	His	Gln	Leu	Ser	Ser					
				470					475						480				
Ile	Asp	Phe	Ser	Gly	Gly	Asn	Arg	Lys	Thr	Leu	Ile	Ser	Ser	Thr					
				485					490						495				
Asp	Phe	Leu	Ser	His	Pro	Phe	Gly	Ile	Ala	Val	Phe	Glu	Asp	Lys					
				500					505						510				
Val	Phe	Trp	Thr	Asp	Leu	Glu	Asn	Glu	Ala	Ile	Phe	Ser	Ala	Asn					
				515					520						525				
Arg	Leu	Asn	Gly	Leu	Glu	Ile	Ser	Ile	Leu	Ala	Glu	Asn	Leu	Asn					
				530					535						540				
Asn	Pro	His	Asp	Ile	Val	Ile	Phe	His	Glu	Leu	Lys	Gln	Pro	Arg					
				545					550						555				
Ala	Pro	Asp	Ala	Cys	Glu	Leu	Ser	Val	Gln	Pro	Asn	Gly	Gly	Cys					
				560					565						570				
Glu	Tyr	Leu	Cys	Leu	Pro	Ala	Pro	Gln	Ile	Ser	Ser	His	Ser	Pro					
				575					580						585				
Lys	Tyr	Thr	Cys	Ala	Cys	Pro	Asp	Thr	Met	Trp	Leu	Gly	Pro	Asp					
				590					595						600				
Met	Lys	Arg	Cys	Tyr	Arg	Asp	Ala	Asn	Glu	Asp	Ser	Lys	Met	Gly					
				605					610						615				
Ser	Thr	Val	Thr	Ala	Ala	Val	Ile	Gly	Ile	Ile	Val	Pro	Ile	Val					
				620					625						630				
Val	Ile	Ala	Leu	Leu	Cys	Met	Ser	Gly	Tyr	Leu	Ile	Trp	Arg	Asn					
				635					640						645				
Trp	Lys	Arg	Lys	Asn	Thr	Lys	Ser	Met	Asn	Phe	Asp	Asn	Pro	Val					
				650					655						660				
Tyr	Arg	Lys	Thr	Thr	Glu	Glu	Glu	Asp	Glu	Asp	Glu	Leu	His	Ile					
				665					670						675				

Gly Arg Thr Ala Gln Ile Gly His Val Tyr Pro Ala Arg Val Ala
680 685 690

Leu Ser Leu Glu Asp Asp Gly Leu Pro
695

<210> 142
<211> 287
<212> PRT
<213> Homo sapien

<400> 142
Met Pro Pro Leu Trp Ala Leu Leu Ala Leu Gly Cys Leu Arg Phe
1 5 10 15
Gly Ser Ala Val Asn Leu Gln Pro Gln Leu Ala Ser Val Thr Phe
20 25 30
Ala Thr Asn Asn Pro Thr Leu Thr Thr Val Ala Leu Glu Lys Pro
35 40 45
Leu Cys Met Phe Asp Ser Lys Glu Ala Leu Thr Gly Thr His Glu
50 55 60
Val Tyr Leu Tyr Val Leu Val Asp Ser Ala Ile Ser Arg Asn Ala
65 70 75
Ser Val Gln Asp Ser Thr Asn Thr Pro Leu Gly Ser Thr Phe Leu
80 85 90
Gln Thr Glu Gly Gly Arg Thr Gly Pro Tyr Lys Ala Val Ala Phe
95 100 105
Asp Leu Ile Pro Cys Ser Asp Leu Pro Ser Leu Asp Ala Ile Gly
110 115 120
Asp Val Ser Lys Ala Ser Gln Ile Leu Asn Ala Tyr Leu Val Arg
125 130 135
Val Gly Ala Asn Gly Thr Cys Leu Trp Asp Pro Asn Phe Gln Gly
140 145 150
Leu Cys Asn Ala Pro Leu Ser Ala Ala Thr Glu Tyr Arg Phe Lys
155 160 165
Tyr Val Leu Val Asn Met Ser Thr Gly Leu Val Glu Asp Gln Thr
170 175 180
Leu Trp Ser Asp Pro Ile Arg Thr Asn Gln Leu Thr Pro Tyr Ser
185 190 195
Thr Ile Asp Thr Trp Pro Gly Arg Arg Ser Gly Gly Met Ile Val
200 205 210
Ile Thr Ser Ile Leu Gly Ser Leu Pro Phe Phe Leu Leu Val Gly
215 220 225
Phe Ala Gly Ala Ile Ala Leu Ser Leu Val Asp Met Gly Ser Ser

230	235	240
Asp Gly Glu Thr Thr His Asp Ser Gln Ile Thr Gln Glu Ala Val		
245	250	255
Pro Lys Ser Leu Gly Ala Ser Glu Ser Ser Tyr Thr Ser Val Asn		
260	265	270
Arg Gly Pro Pro Leu Asp Arg Ala Glu Val Tyr Ser Ser Lys Leu		
275	280	285
Gln Asp		
<210> 143		
<211> 196		
<212> PRT		
<213> Homo sapien		
<400> 143		
Met Arg Lys Leu Ile Ala Gly Leu Ile Phe Leu Lys Phe Trp Thr		
1	5	10 15
Tyr Thr Val Arg Ala Ser Thr Asp Leu Pro Gln Thr Glu Asn Cys		
20	25	30
Phe Gln Tyr Ile His Gln Val Thr Glu Ile Ser Ser Thr Leu Pro		
35	40	45
Val Ala Leu Leu Arg Asp Glu Val Pro Gly Trp Phe Leu Lys Val		
50	55	60
Pro Glu Pro Gln Leu Ile Ser Lys Glu Leu Ile Met Leu Thr Glu		
65	70	75
Val Met Glu Val Trp His Gly Leu Val Ile Ala Val Val Ser Leu		
80	85	90
Phe Leu Gln Ala Cys Phe Leu Thr Ala Ile Asn Tyr Leu Leu Ser		
95	100	105
Arg His Met Ala His Lys Ser Glu Gln Ile Leu Lys Ala Ala Ser		
110	115	120
Leu Gln Val Pro Arg Pro Ser Pro Gly His His His Pro Pro Ala		
125	130	135
Val Lys Glu Met Lys Glu Thr Gln Thr Glu Arg Asp Ile Pro Met		
140	145	150
Ser Asp Ser Leu Tyr Arg His Asp Ser Asp Thr Pro Ser Asp Ser		
155	160	165
Leu Asp Ser Ser Cys Ser Ser Pro Pro Ala Cys Gln Ala Thr Glu		
170	175	180
Asp Val Asp Tyr Thr Gln Val Val Phe Ser Asp Pro Gly Glu Leu		
185	190	195

Lys

<210> 144

<211> 580

<212> PRT

<213> Homo sapien

<400> 144

Met	Ala	Gly	Thr	Val	Arg	Thr	Ala	Cys	Leu	Val	Val	Ala	Met	Leu
1				5					10					15

Leu	Ser	Leu	Asp	Phe	Pro	Gly	Gln	Ala	Gln	Pro	Pro	Pro	Pro	Pro
				20					25					30

Pro	Asp	Ala	Thr	Cys	His	Gln	Val	Arg	Ser	Phe	Phe	Gln	Arg	Leu
				35					40					45

Gln	Pro	Gly	Leu	Lys	Trp	Val	Pro	Glu	Thr	Pro	Val	Pro	Gly	Ser
				50					55					60

Asp	Leu	Gln	Val	Cys	Leu	Pro	Lys	Gly	Pro	Thr	Cys	Cys	Ser	Arg
				65					70					75

Lys	Met	Glu	Glu	Lys	Tyr	Gln	Leu	Thr	Ala	Arg	Leu	Asn	Met	Glu
				80					85					90

Gln	Leu	Leu	Gln	Ser	Ala	Ser	Met	Glu	Leu	Lys	Phe	Leu	Ile	Ile
				95					100					105

Gln	Asn	Ala	Ala	Val	Phe	Gln	Glu	Ala	Phe	Glu	Ile	Val	Val	Arg
				110					115					120

His	Ala	Lys	Asn	Tyr	Thr	Asn	Ala	Met	Phe	Lys	Asn	Asn	Tyr	Pro
				125					130					135

Ser	Leu	Thr	Pro	Gln	Ala	Phe	Glu	Phe	Val	Gly	Glu	Phe	Phe	Thr
				140					145					150

Asp	Val	Ser	Leu	Tyr	Ile	Leu	Gly	Ser	Asp	Ile	Asn	Val	Asp	Asp
				155					160					165

Met	Val	Asn	Glu	Leu	Phe	Asp	Ser	Leu	Phe	Pro	Val	Ile	Tyr	Thr
				170					175					180

Gln	Leu	Met	Asn	Pro	Gly	Leu	Pro	Asp	Ser	Ala	Leu	Asp	Ile	Asn
				185					190					195

Glu	Cys	Leu	Arg	Gly	Ala	Arg	Arg	Asp	Leu	Lys	Val	Phe	Gly	Asn
				200					205					210

Phe	Pro	Lys	Leu	Ile	Met	Thr	Gln	Val	Ser	Lys	Ser	Leu	Gln	Val
				215					220					225

Thr	Arg	Ile	Phe	Leu	Gln	Ala	Leu	Asn	Leu	Gly	Ile	Glu	Val	Ile
				230					235					240

Asn	Thr	Thr	Asp	His	Leu	Lys	Phe	Ser	Lys	Asp	Cys	Gly	Arg	Met
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

245	250	255
Leu Thr Arg Met Trp Tyr Cys Ser Tyr Cys Gln Gly Leu Met Met		
260	265	270
Val Lys Pro Cys Gly Gly Tyr Cys Asn Val Val Met Gln Gly Cys		
275	280	285
Met Ala Gly Val Val Glu Ile Asp Lys Tyr Trp Arg Glu Tyr Ile		
290	295	300
Leu Ser Leu Glu Glu Leu Val Asn Gly Met Tyr Arg Ile Tyr Asp		
305	310	315
Met Glu Asn Val Leu Leu Gly Leu Phe Ser Thr Ile His Asp Ser		
320	325	330
Ile Gln Tyr Val Gln Lys Asn Ala Gly Lys Leu Thr Thr Thr Ile		
335	340	345
Gly Lys Leu Cys Ala His Ser Gln Gln Arg Gln Tyr Arg Ser Ala		
350	355	360
Tyr Tyr Pro Glu Asp Leu Phe Ile Asp Lys Lys Val Leu Lys Val		
365	370	375
Ala His Val Glu His Glu Glu Thr Leu Ser Ser Arg Arg Arg Glu		
380	385	390
Leu Ile Gln Lys Leu Lys Ser Phe Ile Ser Phe Tyr Ser Ala Leu		
395	400	405
Pro Gly Tyr Ile Cys Ser His Ser Pro Val Ala Glu Asn Asp Thr		
410	415	420
Leu Cys Trp Asn Gly Gln Glu Leu Met Glu Arg Tyr Ser Gln Lys		
425	430	435
Ala Ala Arg Asn Gly Met Lys Asn Gln Phe Asn Leu His Glu Leu		
440	445	450
Lys Met Lys Gly Pro Glu Pro Val Val Ser Gln Ile Ile Asp Lys		
455	460	465
Leu Lys His Ile Asn Gln Leu Leu Arg Thr Met Ser Met Pro Lys		
470	475	480
Gly Arg Val Leu Asp Lys Asn Leu Asp Glu Glu Gly Phe Glu Ser		
485	490	495
Gly Asp Cys Gly Asp Asp Glu Asp Glu Cys Ile Gly Gly Ser Gly		
500	505	510
Asp Gly Met Ile Lys Val Lys Asn Gln Leu Arg Phe Leu Ala Glu		
515	520	525
Leu Ala Tyr Asp Leu Asp Val Asp Asp Ala Pro Gly Asn Ser Gln		
530	535	540

Gln Ala Thr Pro Lys Asp Asn Glu Ile Ser Thr Phe His Asn Leu
545 550 555

Gly Asn Val His Ser Pro Leu Lys Leu Leu Thr Ser Met Ala Ile
560 565 570

Ser Val Val Cys Phe Phe Phe Leu Val His
575 580

<210> 145

<211> 829

<212> PRT

<213> Homo sapien

<400> 145

Met Gly Leu Pro Arg Gly Pro Leu Ala Ser Leu Leu Leu Leu Gln
1 5 10 15

Val Cys Trp Leu Gln Cys Ala Ala Ser Glu Pro Cys Arg Ala Val
20 25 30

Phe Arg Glu Ala Glu Val Thr Leu Glu Ala Gly Gly Ala Glu Gln
35 40 45

Glu Pro Gly Gln Ala Leu Gly Lys Val Phe Met Gly Cys Pro Gly
50 55 60

Gln Glu Pro Ala Leu Phe Ser Thr Asp Asn Asp Asp Phe Thr Val
65 70 75

Arg Asn Gly Glu Thr Val Gln Glu Arg Arg Ser Leu Lys Glu Arg
80 85 90

Asn Pro Leu Lys Ile Phe Pro Ser Lys Arg Ile Leu Arg Arg His
95 100 105

Lys Arg Asp Trp Val Val Ala Pro Ile Ser Val Pro Glu Asn Gly
110 115 120

Lys Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser Asn Lys
125 130 135

Asp Arg Asp Thr Lys Ile Phe Tyr Ser Ile Thr Gly Pro Gly Ala
140 145 150

Asp Ser Pro Pro Glu Gly Val Phe Ala Val Glu Lys Glu Thr Gly
155 160 165

Trp Leu Leu Leu Asn Lys Pro Leu Asp Arg Glu Glu Ile Ala Lys
170 175 180

Tyr Glu Leu Phe Gly His Ala Val Ser Glu Asn Gly Ala Ser Val
185 190 195

Glu Asp Pro Met Asn Ile Ser Ile Ile Val Thr Asp Gln Asn Asp
200 205 210

His Lys Pro Lys Phe Thr Gln Asp Thr Phe Arg Gly Ser Val Leu

215	220	225
Glu Gly Val Leu Pro Gly Thr Ser Val	Met Gln Val Thr Ala Thr	
230	235	240
Asp Glu Asp Asp Ala Ile Tyr Thr Tyr	Asn Gly Val Val Ala Tyr	
245	250	255
Ser Ile His Ser Gln Glu Pro Lys Asp	Pro His Asp Leu Met Phe	
260	265	270
Thr Ile His Arg Ser Thr Gly Thr Ile	Ser Val Ile Ser Ser Gly	
275	280	285
Leu Asp Arg Glu Lys Val Pro Glu Tyr	Thr Leu Thr Ile Gln Ala	
290	295	300
Thr Asp Met Asp Gly Asp Gly Ser Thr	Thr Thr Ala Val Ala Val	
305	310	315
Val Glu Ile Leu Asp Ala Asn Asp Asn	Ala Pro Met Phe Asp Pro	
320	325	330
Gln Lys Tyr Glu Ala His Val Pro Glu	Asn Ala Val Gly His Glu	
335	340	345
Val Gln Arg Leu Thr Val Thr Asp Leu	Asp Ala Pro Asn Ser Pro	
350	355	360
Ala Trp Arg Ala Thr Tyr Leu Ile Met	Gly Gly Asp Asp Gly Asp	
365	370	375
His Phe Thr Ile Thr Thr His Pro Glu	Ser Asn Gln Gly Ile Leu	
380	385	390
Thr Thr Arg Lys Gly Leu Asp Phe Glu	Ala Lys Asn Gln His Thr	
395	400	405
Leu Tyr Val Glu Val Thr Asn Glu Ala	Pro Phe Val Leu Lys Leu	
410	415	420
Pro Thr Ser Thr Ala Thr Ile Val Val	His Val Glu Asp Val Asn	
425	430	435
Glu Ala Pro Val Phe Val Pro Pro Ser	Lys Val Val Glu Val Gln	
440	445	450
Glu Gly Ile Pro Thr Gly Glu Pro Val	Cys Val Tyr Thr Ala Glu	
455	460	465
Asp Pro Asp Lys Glu Asn Gln Lys Ile	Ser Tyr Arg Ile Leu Arg	
470	475	480
Asp Pro Ala Gly Trp Leu Ala Met Asp	Pro Asp Ser Gly Gln Val	
485	490	495
Thr Ala Val Gly Thr Leu Asp Arg Glu	Asp Glu Gln Phe Val Arg	
500	505	510

Asn Asn Ile Tyr	Glu Val Met Val Leu	Ala Met Asp Asn Gly	Ser
515		520	525
Pro Pro Thr Thr	Gly Thr Gly Thr Leu	Leu Leu Thr Leu Ile	Asp
530		535	540
Val Asn Asp His	Gly Pro Val Pro Glu	Pro Arg Gln Ile Thr	Ile
545		550	555
Cys Asn Gln Ser	Pro Val Arg His Val	Leu Asn Ile Thr Asp	Lys
560		565	570
Asp Leu Ser Pro	His Thr Ser Pro Phe	Gln Ala Gln Leu Thr	Asp
575		580	585
Asp Ser Asp Ile	Tyr Trp Thr Ala Glu	Val Asn Glu Glu Gly	Asp
590		595	600
Thr Val Val Leu	Ser Leu Lys Lys Phe	Leu Lys Gln Asp Thr	Tyr
605		610	615
Asp Val His Leu	Ser Leu Ser Asp His	Gly Asn Lys Glu Gln	Leu
620		625	630
Thr Val Ile Arg	Ala Thr Val Cys Asp	Cys His Gly His Val	Glu
635		640	645
Thr Cys Pro Gly	Pro Trp Lys Gly Gly	Phe Ile Leu Pro Val	Leu
650		655	660
Gly Ala Val Leu	Ala Leu Leu Phe Leu	Leu Leu Val Leu Leu	Leu
665		670	675
Leu Val Arg Lys	Lys Arg Lys Ile Lys	Glu Pro Leu Leu Leu	Pro
680		685	690
Glu Asp Asp Thr	Arg Asp Asn Val Phe	Tyr Tyr Gly Glu Glu	Gly
695		700	705
Gly Gly Glu Glu	Asp Gln Asp Tyr Asp	Ile Thr Gln Leu His	Arg
710		715	720
Gly Leu Glu Ala	Arg Pro Glu Val Val	Leu Arg Asn Asp Val	Ala
725		730	735
Pro Thr Ile Ile	Pro Thr Pro Met Tyr	Arg Pro Arg Pro Ala	Asn
740		745	750
Pro Asp Glu Ile	Gly Asn Phe Ile Ile	Glu Asn Leu Lys Ala	Ala
755		760	765
Asn Thr Asp Pro	Thr Ala Pro Pro Tyr	Asp Thr Leu Leu Val	Phe
770		775	780
Asp Tyr Glu Gly	Ser Gly Ser Asp Ala	Ala Ser Leu Ser Ser	Leu
785		790	795
Thr Ser Ser Ala	Ser Asp Gln Asp Gln	Asp Tyr Asp Tyr Leu	Asn

800	805	810
Glu Trp Gly Ser Arg Phe Lys Lys Leu Ala Asp Met Tyr Gly Gly		
815	820	825
Gly Glu Asp Asp		
<210> 146		
<211> 462		
<212> PRT		
<213> Homo sapien		
<400> 146		
Gly Asp Cys Gly Asp Arg Gly Thr Ala Arg Gly Thr Arg Arg Glu		
1	5	10 15
Gly Thr Gly Ile Arg Ser Ser Gly Arg Ala Met Asp Gly Asn Asp		
20	25	30
Asn Val Thr Leu Leu Phe Ala Pro Leu Leu Arg Asp Asn Tyr Thr		
35	40	45
Leu Ala Pro Asn Ala Ser Ser Leu Gly Pro Gly Thr Asp Leu Ala		
50	55	60
Leu Ala Pro Ala Ser Ser Ala Gly Pro Gly Pro Gly Leu Ser Leu		
65	70	75
Gly Pro Gly Pro Ser Phe Gly Phe Ser Pro Gly Pro Thr Pro Thr		
80	85	90
Pro Glu Pro Thr Thr Ser Gly Leu Ala Gly Gly Ala Ala Ser His		
95	100	105
Gly Pro Ser Pro Phe Pro Arg Pro Trp Ala Pro His Ala Leu Pro		
110	115	120
Phe Trp Asp Thr Pro Leu Asn His Gly Leu Asn Val Phe Val Gly		
125	130	135
Ala Ala Leu Cys Ile Thr Met Leu Gly Leu Gly Cys Thr Val Asp		
140	145	150
Val Asn His Phe Gly Ala His Val Arg Arg Pro Val Gly Ala Leu		
155	160	165
Leu Ala Ala Leu Cys Gln Phe Gly Leu Leu Pro Leu Leu Ala Phe		
170	175	180
Leu Leu Ala Leu Ala Phe Lys Leu Asp Glu Val Ala Ala Val Ala		
185	190	195
Val Leu Leu Cys Gly Cys Cys Pro Gly Gly Asn Leu Ser Asn Leu		
200	205	210
Met Ser Leu Leu Val Asp Gly Asp Met Asn Leu Ser Ile Ile Met		
215	220	225

Thr	Ile	Ser	Ser	Thr	Leu	Leu	Ala	Leu	Val	Leu	Met	Pro	Leu	Cys	
				230					235					240	
Leu	Trp	Ile	Tyr	Ser	Trp	Ala	Trp	Ile	Asn	Thr	Pro	Ile	Val	Gln	
				245					250					255	
Leu	Leu	Pro	Leu	Gly	Thr	Val	Thr	Leu	Thr	Leu	Cys	Ser	Thr	Leu	
				260					265					270	
Ile	Pro	Ile	Gly	Leu	Gly	Val	Phe	Ile	Arg	Tyr	Lys	Tyr	Ser	Arg	
				275					280					285	
Val	Ala	Asp	Tyr	Ile	Val	Lys	Val	Ser	Leu	Trp	Ser	Leu	Leu	Val	
				290					295					300	
Thr	Leu	Val	Val	Leu	Phe	Ile	Met	Thr	Gly	Thr	Met	Leu	Gly	Pro	
				305					310					315	
Glu	Leu	Leu	Ala	Ser	Ile	Pro	Ala	Ala	Val	Tyr	Val	Ile	Ala	Ile	
				320					325					330	
Phe	Met	Pro	Leu	Ala	Gly	Tyr	Ala	Ser	Gly	Tyr	Gly	Leu	Ala	Thr	
				335					340					345	
Leu	Phe	His	Leu	Pro	Pro	Asn	Cys	Lys	Arg	Thr	Val	Cys	Leu	Glu	
				350					355					360	
Thr	Gly	Ser	Gln	Asn	Val	Gln	Leu	Cys	Thr	Ala	Ile	Leu	Lys	Leu	
				365					370					375	
Ala	Phe	Pro	Pro	Gln	Phe	Ile	Gly	Ser	Met	Tyr	Met	Phe	Pro	Leu	
				380					385					390	
Leu	Tyr	Ala	Leu	Phe	Gln	Ser	Ala	Glu	Ala	Gly	Ile	Phe	Val	Leu	
				395					400					405	
Ile	Tyr	Lys	Met	Tyr	Gly	Ser	Glu	Met	Leu	His	Lys	Arg	Asp	Pro	
				410					415					420	
Leu	Asp	Glu	Asp	Glu	Asp	Thr	Asp	Ile	Ser	Tyr	Lys	Lys	Leu	Lys	
				425					430					435	
Glu	Glu	Glu	Met	Ala	Asp	Thr	Ser	Tyr	Gly	Thr	Val	Lys	Ala	Glu	
				440					445					450	
Asn	Ile	Ile	Met	Met	Glu	Thr	Ala	Gln	Thr	Ser	Leu				
				455					460						

<210> 147
 <211> 335
 <212> PRT
 <213> Homo sapien

<400> 147
 Met Val Arg Arg Asp Arg Leu Arg Arg Met Arg Glu Trp Trp Val
 1 5 10 15
 Gln Val Gly Leu Leu Ala Val Pro Leu Leu Ala Ala Tyr Leu His

	20		25		30
Ile Pro Pro Pro Gln Leu Ser Pro Ala Leu His Ser Trp Lys Ser	35		40		45
Ser Gly Lys Phe Phe Thr Tyr Lys Gly Leu Arg Ile Phe Tyr Gln	50		55		60
Asp Ser Val Gly Val Val Gly Ser Pro Glu Ile Val Val Leu Leu	65		70		75
His Gly Phe Pro Thr Ser Ser Tyr Asp Trp Tyr Lys Ile Trp Lys	80		85		90
Gly Leu Thr Leu Arg Phe His Arg Val Ile Ala Leu Asp Phe Leu	95		100		105
Gly Phe Gly Phe Ser Asp Lys Pro Arg Pro His His Tyr Ser Ile	110		115		120
Phe Glu Gln Ala Ser Ile Val Glu Ala Leu Leu Arg His Leu Gly	125		130		135
Leu Gln Asn Arg Arg Ile Asn Leu Leu Ser His Asp Tyr Gly Asp	140		145		150
Ile Val Ala Gln Glu Leu Leu Tyr Arg Tyr Lys Gln Asn Arg Ser	155		160		165
Gly Arg His Thr Ile Lys Ser Leu Cys Leu Ser Asn Gly Gly Ile	170		175		180
Phe Pro Glu Thr His Arg Pro Leu Leu Leu Gln Lys Leu Leu Lys	185		190		195
Asp Gly Gly Val Leu Ser Pro Ile Leu Thr Arg Leu Met Asn Phe	200		205		210
Phe Val Phe Ser Arg Gly Leu Thr Pro Val Phe Gly Pro Tyr Thr	215		220		225
Arg Pro Ser Glu Ser Glu Leu Trp Asp Met Trp Ala Gly Ile Arg	230		235		240
Asn Asn Asp Gly Asn Leu Val Ile Asp Ser Leu Leu Gln Tyr Ile	245		250		255
Asn Gln Arg Lys Lys Phe Arg Arg Arg Trp Val Gly Ala Leu Ala	260		265		270
Ser Val Thr Ile Pro Ile His Phe Ile Tyr Gly Pro Leu Asp Pro	275		280		285
Val Asn Pro Tyr Pro Glu Phe Leu Glu Leu Tyr Arg Lys Thr Leu	290		295		300
Pro Arg Ser Thr Val Ser Ile Leu Asp Asp His Ile Ser His Tyr	305		310		315

Pro Gln Leu Glu Asp Pro Met Gly Phe Leu Asn Ala Tyr Met Gly
 320 325 330

Phe Ile Asn Ser Phe
 335

<210> 148
 <211> 1537
 <212> PRT
 <213> Homo sapien

<400> 148
 Gly Trp Thr Ser His Leu Ser Asn Cys Gly Glu Ser Asn Arg Pro
 1 5 10 15
 Pro Lys Glu Arg Ser Cys Phe Arg Val Cys Asp Trp His Ser Asp
 20 25 30
 Leu Phe Gln Trp Glu Val Ser Asp Trp His His Cys Val Leu Val
 35 40 45
 Pro Tyr Ala Arg Gly Glu Val Lys Pro Arg Thr Ala Glu Cys Val
 50 55 60
 Thr Ala Gln His Gly Leu Gln His Arg Met Val Arg Cys Ile Gln
 65 70 75
 Lys Leu Asn Arg Thr Val Val Ala Asn Glu Ile Cys Glu His Phe
 80 85 90
 Ala Leu Gln Pro Pro Thr Glu Gln Ala Cys Leu Ile Pro Cys Pro
 95 100 105
 Arg Asp Cys Val Val Ser Glu Phe Leu Pro Trp Ser Asn Cys Ser
 110 115 120
 Lys Gly Cys Gly Lys Lys Leu Gln His Arg Thr Arg Ala Val Ile
 125 130 135
 Ala Pro Pro Leu Phe Gly Gly Leu Gln Cys Pro Asn Leu Thr Glu
 140 145 150
 Ser Arg Ala Cys Asp Ala Pro Ile Ser Cys Pro Leu Gly Glu Glu
 155 160 165
 Glu Tyr Thr Phe Ser Leu Lys Val Gly Pro Trp Ser Lys Cys Arg
 170 175 180
 Leu Pro His Leu Lys Glu Ile Asn Pro Ser Gly Arg Thr Val Leu
 185 190 195
 Asp Phe Asn Ser Asp Ser Asn Glu Arg Val Thr Phe Lys His Gln
 200 205 210
 Ser Tyr Lys Ala His His His Ser Lys Ser Trp Ala Ile Glu Ile
 215 220 225
 Gly Tyr Gln Thr Arg Gln Val Ser Cys Thr Arg Ser Asp Gly Gln

230	235	240
Asn Ala Met Leu Ser Leu Cys Leu Gln Asp Ser Phe Pro Leu Thr		
245	250	255
Val Gln Ser Cys Ile Met Pro Lys Asp Cys Glu Thr Ser Gln Trp		
260	265	270
Ser Ser Trp Ser Pro Cys Ser Lys Thr Cys Arg Ser Gly Ser Leu		
275	280	285
Leu Pro Gly Phe Arg Ser Arg Ser Arg Asn Val Lys His Met Ala		
290	295	300
Ile Gly Gly Gly Lys Glu Cys Pro Glu Leu Leu Glu Lys Glu Ala		
305	310	315
Cys Ile Val Glu Gly Glu Leu Leu Gln Gln Cys Pro Arg Tyr Ser		
320	325	330
Trp Arg Thr Ser Glu Trp Lys Glu Cys Gln Val Ser Leu Leu Leu		
335	340	345
Glu Gln Gln Asp Pro His Trp His Val Thr Gly Pro Val Cys Gly		
350	355	360
Gly Gly Ile Gln Thr Arg Glu Val Tyr Cys Ala Gln Ser Val Pro		
365	370	375
Ala Ala Ala Ala Leu Arg Ala Lys Glu Val Ser Arg Pro Val Glu		
380	385	390
Lys Ala Leu Cys Val Gly Pro Ala Pro Leu Pro Ser Gln Leu Cys		
395	400	405
Asn Ile Pro Cys Ser Thr Asp Cys Ile Val Ser Ser Trp Ser Ala		
410	415	420
Trp Gly Leu Cys Ile His Glu Asn Cys His Glu Pro Gln Gly Lys		
425	430	435
Lys Gly Phe Arg Thr Arg Gln Arg His Val Leu Met Glu Ser Thr		
440	445	450
Gly Pro Ala Gly His Cys Pro His Leu Val Glu Ser Val Pro Cys		
455	460	465
Glu Asp Pro Met Cys Tyr Arg Trp Leu Ala Ser Glu Gly Ile Cys		
470	475	480
Phe Pro Asp His Gly Lys Cys Gly Leu Gly His Arg Ile Leu Lys		
485	490	495
Ala Val Cys Gln Asn Asp Arg Gly Glu Asp Val Ser Gly Ser Leu		
500	505	510
Cys Pro Val Pro Pro Pro Pro Glu Arg Lys Ser Cys Glu Ile Pro		
515	520	525

Cys Arg Met Asp	Cys Val Leu Ser Glu Trp Thr Glu Trp Ser Ser	530	535	540
Cys Ser Gln Ser	Cys Ser Asn Lys Asn Ser Asp Gly Lys Gln Thr	545	550	555
Arg Ser Arg Thr	Ile Leu Ala Leu Ala Gly Glu Gly Gly Lys Pro	560	565	570
Cys Pro Pro Ser	Gln Ala Leu Gln Glu His Arg Leu Cys Asn Asp	575	580	585
His Ser Cys Met	Gln Leu His Trp Glu Thr Ser Pro Trp Gly Pro	590	595	600
Cys Ser Glu Asp	Thr Leu Val Thr Ala Leu Asn Ala Thr Ile Gly	605	610	615
Trp Asn Gly Glu	Ala Thr Cys Gly Val Gly Ile Gln Thr Arg Arg	620	625	630
Val Phe Cys Val	Lys Ser His Val Gly Gln Val Met Thr Lys Arg	635	640	645
Cys Pro Asp Ser	Thr Arg Pro Glu Thr Val Arg Pro Cys Phe Leu	650	655	660
Pro Cys Lys Lys	Asp Cys Ile Val Thr Ala Phe Ser Glu Trp Thr	665	670	675
Pro Cys Pro Arg	Met Cys Gln Ala Gly Asn Ala Thr Val Lys Gln	680	685	690
Ser Arg Tyr Arg	Ile Ile Ile Gln Glu Ala Ala Asn Gly Gly Gln	695	700	705
Glu Cys Pro Asp	Thr Leu Tyr Glu Glu Arg Glu Cys Glu Asp Val	710	715	720
Ser Leu Cys Pro	Val Tyr Arg Trp Lys Pro Gln Lys Trp Ser Pro	725	730	735
Cys Ile Leu Val	Pro Glu Ser Val Trp Gln Gly Ile Thr Gly Ser	740	745	750
Ser Glu Ala Cys	Gly Lys Gly Leu Gln Thr Arg Ala Val Ser Cys	755	760	765
Ile Ser Asp Asp	Asn Arg Ser Ala Glu Met Met Glu Cys Leu Lys	770	775	780
Gln Thr Asn Gly	Met Pro Leu Leu Val Gln Glu Cys Thr Val Pro	785	790	795
Cys Arg Glu Asp	Cys Thr Phe Thr Ala Trp Ser Lys Phe Thr Pro	800	805	810
Cys Ser Thr Asn	Cys Glu Ala Thr Lys Ser Arg Arg Arg Gln Leu			

815	820	825
Thr Gly Lys Ser Arg Lys Lys Glu Lys Cys Gln Asp Ser Asp Leu 830 835 840		
Tyr Pro Leu Val Glu Thr Glu Leu Cys Pro Cys Asp Glu Phe Ile 845 850 855		
Ser Gln Pro Tyr Gly Asn Trp Ser Asp Cys Ile Leu Pro Glu Gly 860 865 870		
Arg Arg Glu Pro His Arg Gly Leu Arg Val Gln Ala Asp Ser Lys 875 880 885		
Glu Cys Gly Glu Gly Leu Arg Phe Arg Ala Val Ala Cys Ser Asp 890 895 900		
Lys Asn Gly Arg Pro Val Asp Pro Ser Phe Cys Ser Ser Ser Gly 905 910 915		
Tyr Ile Gln Glu Lys Cys Val Ile Pro Cys Pro Phe Asp Cys Lys 920 925 930		
Leu Ser Asp Trp Ser Ser Trp Gly Ser Cys Ser Ser Ser Cys Gly 935 940 945		
Ile Gly Val Arg Ile Arg Ser Lys Trp Leu Lys Glu Lys Pro Tyr 950 955 960		
Asn Gly Gly Arg Pro Cys Pro Lys Leu Asp Leu Lys Asn Gln Ala 965 970 975		
Gln Val His Glu Ala Val Pro Cys Tyr Ser Glu Cys Asn Gln Tyr 980 985 990		
Ser Trp Val Val Glu His Trp Ser Ser Cys Lys Ile Asn Asn Glu 995 1000 1005		
Leu Arg Ser Leu Arg Cys Gly Gly Gly Thr Gln Ser Arg Lys Ile 1010 1015 1020		
Arg Cys Val Asn Thr Ala Asp Gly Glu Gly Gly Ala Val Asp Ser 1025 1030 1035		
Asn Leu Cys Asn Gln Asp Glu Ile Pro Pro Glu Thr Gln Ser Cys 1040 1045 1050		
Ser Leu Met Cys Pro Asn Glu Cys Val Met Ser Glu Trp Gly Leu 1055 1060 1065		
Trp Ser Lys Cys Pro Gln Ser Cys Asp Pro His Thr Met Gln Arg 1070 1075 1080		
Arg Thr Arg His Leu Leu Arg Pro Ser Leu Asn Ser Arg Thr Cys 1085 1090 1095		
Ala Glu Asp Ser Gln Val Gln Pro Cys Leu Leu Asn Glu Asn Cys 1100 1105 1110		

Phe Gln Phe Gln Tyr Asn Leu Thr Glu Trp Ser Thr Cys Gln Leu	1115	1120	1125
Ser Glu Asn Ala Pro Cys Gly Gln Gly Val Arg Thr Arg Leu Leu	1130	1135	1140
Ser Cys Val Cys Ser Asp Gly Lys Pro Val Ser Met Asp Gln Cys	1145	1150	1155
Glu Gln His Asn Leu Glu Lys Pro Gln Arg Met Ser Ile Pro Cys	1160	1165	1170
Leu Val Glu Cys Val Val Asn Cys Gln Leu Ser Gly Trp Thr Ala	1175	1180	1185
Trp Thr Glu Cys Ser Gln Thr Cys Gly His Gly Gly Arg Met Ser	1190	1195	1200
Arg Thr Arg Phe Ile Ile Met Pro Thr Gln Gly Glu Gly Arg Pro	1205	1210	1215
Cys Pro Thr Glu Leu Thr Gln Glu Lys Thr Cys Pro Val Thr Pro	1220	1225	1230
Cys Tyr Ser Trp Val Leu Gly Asn Trp Ser Ala Cys Lys Leu Glu	1235	1240	1245
Gly Gly Asp Cys Gly Glu Gly Val Gln Ile Arg Ser Leu Ser Cys	1250	1255	1260
Met Val His Ser Gly Ser Ile Ser His Ala Ala Gly Arg Val Glu	1265	1270	1275
Asp Ala Leu Cys Gly Glu Met Pro Phe Gln Asp Ser Ile Leu Lys	1280	1285	1290
Gln Leu Cys Ser Val Pro Cys Pro Gly Asp Cys His Leu Thr Glu	1295	1300	1305
Trp Ser Glu Trp Ser Thr Cys Glu Leu Thr Cys Ile Asp Gly Arg	1310	1315	1320
Ser Phe Glu Thr Val Gly Arg Gln Ser Arg Ser Arg Thr Phe Ile	1325	1330	1335
Ile Gln Ser Phe Glu Asn Gln Asp Ser Cys Pro Gln Gln Val Leu	1340	1345	1350
Glu Thr Arg Pro Cys Thr Gly Gly Lys Cys Tyr His Tyr Thr Trp	1355	1360	1365
Lys Ala Ser Leu Trp Asn Asn Asn Glu Arg Thr Val Trp Cys Gln	1370	1375	1380
Arg Ser Asp Gly Val Asn Val Thr Gly Gly Cys Ser Pro Gln Ala	1385	1390	1395
Arg Pro Ala Ala Ile Arg Gln Cys Ile Pro Ala Cys Arg Lys Pro			

1400	1405	1410
Phe Ser Tyr Cys Thr Gln Gly Gly Val Cys Gly Cys Glu Lys Gly		
1415	1420	1425
Tyr Thr Glu Ile Met Arg Ser Asn Gly Phe Leu Asp Tyr Cys Met		
1430	1435	1440
Lys Val Pro Gly Ser Glu Asp Lys Lys Ala Asp Val Lys Asn Leu		
1445	1450	1455
Ser Gly Lys Asn Arg Pro Val Asn Ser Lys Ile His Asp Ile Phe		
1460	1465	1470
Lys Gly Trp Ser Leu Gln Pro Leu Asp Pro Asp Gly Arg Val Lys		
1475	1480	1485
Ile Trp Val Tyr Gly Val Ser Gly Gly Ala Phe Leu Ile Met Ile		
1490	1495	1500
Phe Leu Ile Phe Thr Ser Tyr Leu Val Cys Lys Lys Pro Lys Pro		
1505	1510	1515
His Gln Ser Thr Pro Pro Gln Gln Lys Pro Leu Thr Leu Ala Tyr		
1520	1525	1530
Asp Gly Asp Leu Asp Met Asn		
1535		
<210> 149		
<211> 453		
<212> PRT		
<213> Homo sapien		
<400> 149		
Glu Lys Pro Val Arg Lys Gln Thr Pro Pro Thr Thr Gln Ile His		
1	5	10
Cys Gly Pro Pro Lys Pro Val Leu Ser Pro Ser Phe Lys Thr Pro		
20	25	30
Ala Thr Pro Leu Gly Leu Ser Thr Ser Thr Gly His Met Leu Met		
35	40	45
Pro Leu Cys Gly Leu Leu Trp Trp Trp Trp Cys Cys Cys Ser Gly		
50	55	60
Trp Tyr Cys Tyr Gly Leu Cys Ala Pro Ala Pro Gln Met Leu Arg		
65	70	75
His Gln Gly Leu Leu Lys Cys Arg Cys Arg Met Leu Phe Asn Asp		
80	85	90
Leu Lys Val Phe Leu Leu Arg Arg Pro Pro Gln Ala Pro Leu Pro		
95	100	105
Met His Gly Asp Pro Gln Pro Pro Gly Leu Ala Ala Asn Asn Thr		
110	115	120

Leu	Pro	Ala	Leu	Gly	Ala	Gly	Gly	Trp	Ala	Gly	Trp	Arg	Gly	Pro		125	130	135
Arg	Glu	Val	Val	Gly	Arg	Glu	Pro	Pro	Pro	Val	Pro	Pro	Pro	Pro		140	145	150
Pro	Leu	Pro	Pro	Ser	Ser	Val	Glu	Asp	Asp	Trp	Gly	Gly	Pro	Ala		155	160	165
Thr	Glu	Pro	Pro	Ala	Ser	Leu	Leu	Ser	Ser	Ala	Ser	Ser	Asp	Asp		170	175	180
Phe	Cys	Lys	Glu	Lys	Thr	Glu	Asp	Arg	Tyr	Ser	Leu	Gly	Ser	Ser		185	190	195
Leu	Asp	Ser	Gly	Met	Arg	Thr	Pro	Leu	Cys	Arg	Ile	Cys	Phe	Gln		200	205	210
Gly	Pro	Glu	Gln	Gly	Glu	Leu	Leu	Ser	Pro	Cys	Arg	Cys	Asp	Gly		215	220	225
Ser	Val	Lys	Cys	Thr	His	Gln	Pro	Cys	Leu	Ile	Lys	Trp	Ile	Ser		230	235	240
Glu	Arg	Gly	Cys	Trp	Ser	Cys	Glu	Leu	Cys	Tyr	Tyr	Lys	Tyr	His		245	250	255
Val	Ile	Ala	Ile	Ser	Thr	Lys	Asn	Pro	Leu	Gln	Trp	Gln	Ala	Ile		260	265	270
Ser	Leu	Thr	Val	Ile	Glu	Lys	Val	Gln	Val	Ala	Ala	Ala	Ile	Leu		275	280	285
Gly	Ser	Leu	Phe	Leu	Ile	Ala	Ser	Ile	Ser	Trp	Leu	Ile	Trp	Ser		290	295	300
Thr	Phe	Ser	Pro	Ser	Ala	Arg	Trp	Gln	Arg	Gln	Asp	Leu	Leu	Phe		305	310	315
Gln	Ile	Cys	Tyr	Gly	Met	Tyr	Gly	Phe	Met	Asp	Val	Val	Cys	Ile		320	325	330
Gly	Leu	Ile	Ile	His	Glu	Gly	Pro	Ser	Val	Tyr	Arg	Ile	Phe	Lys		335	340	345
Arg	Trp	Gln	Ala	Val	Asn	Gln	Gln	Trp	Lys	Val	Leu	Asn	Tyr	Asp		350	355	360
Lys	Thr	Lys	Asp	Leu	Glu	Asp	Gln	Lys	Ala	Gly	Gly	Arg	Thr	Asn		365	370	375
Pro	Arg	Thr	Ser	Ser	Ser	Thr	Gln	Ala	Asn	Ile	Pro	Ser	Ser	Glu		380	385	390
Glu	Glu	Thr	Ala	Gly	Thr	Pro	Ala	Pro	Glu	Gln	Gly	Pro	Ala	Gln		395	400	405
Ala	Ala	Gly	His	Pro	Ser	Gly	Pro	Leu	Ser	His	His	His	Cys	Ala				

410	415	420
Tyr Thr Ile Leu His Ile Leu Ser His Leu Arg Pro His Glu Gln		
425	430	435
Arg Ser Pro Pro Gly Ser Ser Arg Glu Leu Val Met Arg Val Thr		
440	445	450
Thr Val Asn		
<210> 150		
<211> 981		
<212> PRT		
<213> Homo sapien		
<400> 150		
Gln Glu Gln Gly Asp Lys Met Met Glu Glu Tyr Ser Leu Glu Lys		
1	5	10
Asn Glu Arg Ala Cys Ile Asp Phe Ala Ile Ser Ala Lys Pro Leu		
20	25	30
Thr Arg His Met Pro Gln Asn Lys Gln Ser Phe Gln Tyr Arg Met		
35	40	45
Trp Gln Phe Val Val Ser Pro Pro Phe Glu Tyr Thr Ile Met Ala		
50	55	60
Met Ile Ala Leu Asn Thr Ile Val Leu Met Met Lys Phe Tyr Gly		
65	70	75
Ala Ser Val Ala Tyr Glu Asn Ala Leu Arg Val Phe Asn Ile Val		
80	85	90
Phe Thr Ser Leu Phe Ser Leu Glu Cys Val Leu Lys Val Met Ala		
95	100	105
Phe Gly Ile Leu Asn Tyr Phe Arg Asp Ala Trp Asn Ile Phe Asp		
110	115	120
Phe Val Thr Val Leu Gly Ser Ile Thr Asp Ile Leu Val Thr Glu		
125	130	135
Phe Gly Asn Asn Phe Ile Asn Leu Ser Phe Leu Arg Leu Phe Arg		
140	145	150
Ala Ala Arg Leu Ile Lys Leu Leu Arg Gln Gly Tyr Thr Ile Arg		
155	160	165
Ile Leu Leu Trp Thr Phe Val Gln Ser Phe Lys Ala Leu Pro Tyr		
170	175	180
Val Cys Leu Leu Ile Ala Met Leu Phe Phe Ile Tyr Ala Ile Ile		
185	190	195
Gly Met Gln Val Phe Gly Asn Ile Gly Ile Asp Val Glu Asp Glu		
200	205	210

Asp Ser Asp Glu Asp Glu Phe Gln Ile Thr Glu His Asn Asn Phe	215	220	225
Arg Thr Phe Phe Gln Ala Leu Met Leu Leu Phe Arg Ser Ala Thr	230	235	240
Gly Glu Ala Trp His Asn Ile Met Leu Ser Cys Leu Ser Gly Lys	245	250	255
Pro Cys Asp Lys Asn Ser Gly Ile Leu Thr Arg Glu Cys Gly Asn	260	265	270
Glu Phe Ala Tyr Phe Tyr Phe Val Ser Phe Ile Phe Leu Cys Ser	275	280	285
Phe Leu Met Leu Asn Leu Phe Val Ala Val Ile Met Asp Asn Phe	290	295	300
Glu Tyr Leu Thr Arg Asp Ser Ser Ile Leu Gly Pro His His Leu	305	310	315
Asp Glu Tyr Val Arg Val Trp Ala Glu Tyr Asp Pro Ala Ala Cys	320	325	330
Gly Arg Ile His Tyr Lys Asp Met Tyr Ser Leu Leu Arg Val Ile	335	340	345
Ser Pro Pro Leu Gly Leu Gly Lys Lys Cys Pro His Arg Val Ala	350	355	360
Cys Lys Arg Leu Leu Arg Met Asp Leu Pro Val Ala Asp Asp Asn	365	370	375
Thr Val His Phe Asn Ser Thr Leu Met Ala Leu Ile Arg Thr Ala	380	385	390
Leu Asp Ile Lys Ile Ala Lys Gly Gly Ala Asp Lys Gln Gln Met	395	400	405
Asp Ala Glu Leu Arg Lys Glu Met Met Ala Ile Trp Pro Asn Leu	410	415	420
Ser Gln Lys Thr Leu Asp Leu Leu Val Thr Pro His Lys Ser Thr	425	430	435
Asp Leu Thr Val Gly Lys Ile Tyr Ala Ala Met Met Ile Met Glu	440	445	450
Tyr Tyr Arg Gln Ser Lys Ala Lys Lys Leu Gln Ala Met Arg Glu	455	460	465
Glu Gln Asp Arg Thr Pro Leu Met Phe Gln Arg Met Glu Pro Pro	470	475	480
Ser Pro Thr Gln Glu Gly Gly Pro Gly Gln Asn Ala Leu Pro Ser	485	490	495
Thr Gln Leu Asp Pro Gly Gly Ala Leu Met Ala His Glu Ser Gly			

500	505	510
Leu Lys Glu Ser Pro Ser Trp Val Thr Gln Arg Ala Gln Glu Met		
515	520	525
Phe Gln Lys Thr Gly Thr Trp Ser Pro Glu Gln Gly Pro Pro Thr		
530	535	540
Asp Met Pro Asn Ser Gln Pro Asn Ser Gln Ser Val Glu Met Arg		
545	550	555
Glu Met Gly Arg Asp Gly Tyr Ser Asp Ser Glu His Tyr Leu Pro		
560	565	570
Met Glu Gly Gln Gly Arg Ala Ala Ser Met Pro Arg Leu Pro Ala		
575	580	585
Glu Asn Gln Thr Ile Ser Asp Thr Ser Pro Met Lys Arg Ser Ala		
590	595	600
Ser Val Leu Gly Pro Lys Ala Arg Arg Leu Asp Asp Tyr Ser Leu		
605	610	615
Glu Arg Val Pro Pro Glu Glu Asn Gln Arg His His Gln Arg Arg		
620	625	630
Arg Asp Arg Ser His Arg Ala Ser Glu Arg Ser Leu Gly Arg Tyr		
635	640	645
Thr Asp Val Asp Thr Gly Leu Gly Thr Asp Leu Ser Met Thr Thr		
650	655	660
Gln Ser Gly Asp Leu Pro Ser Lys Glu Arg Asp Gln Glu Arg Gly		
665	670	675
Arg Pro Lys Asp Arg Lys His Arg Gln His His His His His His		
680	685	690
His His His His Pro Pro Pro Pro Asp Lys Asp Arg Tyr Ala Gln		
695	700	705
Glu Arg Pro Asp His Gly Arg Ala Arg Ala Arg Asp Gln Arg Trp		
710	715	720
Ser Arg Ser Pro Ser Glu Gly Arg Glu His Met Ala His Arg Gln		
725	730	735
Gly Ser Ser Ser Val Ser Gly Ser Pro Ala Pro Ser Thr Ser Gly		
740	745	750
Thr Ser Thr Pro Arg Arg Gly Arg Arg Gln Leu Pro Gln Thr Pro		
755	760	765
Ser Thr Pro Arg Pro His Val Ser Tyr Ser Pro Val Ile Arg Lys		
770	775	780
Ala Gly Gly Ser Gly Pro Pro Gln Gln Gln Gln Gln Gln Gln		
785	790	795

Gln Gln Gln Gln Ala Val Ala Arg Pro Gly Arg Ala Ala Thr Ser
 800 805 810
 Gly Pro Arg Arg Tyr Pro Gly Pro Thr Ala Glu Pro Leu Ala Gly
 815 820 825
 Asp Arg Pro Pro Thr Gly Gly His Ser Ser Gly Arg Ser Pro Arg
 830 835 840
 Met Glu Arg Arg Val Pro Gly Pro Ala Arg Ser Glu Ser Pro Arg
 845 850 855
 Ala Cys Arg His Gly Gly Ala Arg Trp Pro Ala Ser Gly Pro His
 860 865 870
 Val Ser Glu Gly Pro Pro Gly Pro Arg His His Gly Tyr Tyr Arg
 875 880 885
 Gly Ser Asp Tyr Asp Glu Ala Asp Gly Pro Gly Ser Gly Gly Gly
 890 895 900
 Glu Glu Ala Met Ala Gly Ala Tyr Asp Ala Pro Pro Pro Val Arg
 905 910 915
 His Ala Ser Ser Gly Ala Thr Gly Arg Ser Pro Arg Thr Pro Arg
 920 925 930
 Ala Ser Gly Pro Ala Cys Ala Ser Pro Ser Arg His Gly Arg Arg
 935 940 945
 Leu Pro Asn Gly Tyr Tyr Pro Ala His Gly Leu Ala Arg Pro Arg
 950 955 960
 Gly Pro Gly Ser Arg Lys Gly Leu His Glu Pro Tyr Ser Glu Ser
 965 970 975
 Asp Asp Asp Trp Cys Asn
 980

<210> 151
 <211> 996
 <212> PRT
 <213> Homo sapien

<400> 151
 Met Arg Pro Val Ala Leu Leu Leu Leu Pro Ser Leu Leu Ala Leu
 1 5 10 15
 Leu Ala His Gly Leu Ser Leu Glu Ala Pro Thr Val Gly Lys Gly
 20 25 30
 Gln Ala Pro Gly Ile Glu Glu Thr Asp Gly Glu Leu Thr Ala Ala
 35 40 45
 Pro Thr Pro Glu Gln Pro Glu Arg Gly Val His Phe Val Thr Thr
 50 55 60
 Ala Pro Thr Leu Lys Leu Leu Asn His His Pro Leu Leu Glu Glu

65					70					75				
Phe	Leu	His	Glu	Gly	Leu	Glu	Lys	Gly	Asp	Glu	Glu	Leu	Arg	Pro
			80						85					90
Ala	Leu	Ser	Phe	Gln	Pro	Asp	Pro	Pro	Ala	Pro	Phe	Thr	Pro	Ser
			95						100					105
Pro	Leu	Pro	Arg	Leu	Ala	Asn	Gln	Asp	Ser	Arg	Pro	Val	Phe	Thr
			110						115					120
Ser	Pro	Thr	Pro	Ala	Met	Ala	Ala	Val	Pro	Thr	Gln	Pro	Gln	Ser
			125						130					135
Lys	Glu	Gly	Pro	Trp	Ser	Pro	Asp	Pro	Glu	Ser	Glu	Ser	Pro	Met
			140						145					150
Leu	Arg	Ile	Thr	Ala	Pro	Leu	Pro	Pro	Gly	Pro	Ser	Met	Ala	Val
			155						160					165
Pro	Thr	Leu	Gly	Pro	Gly	Glu	Ile	Ala	Ser	Thr	Thr	Pro	Pro	Ser
			170						175					180
Arg	Ala	Trp	Thr	Pro	Thr	Gln	Glu	Gly	Pro	Gly	Asp	Met	Gly	Arg
			185						190					195
Pro	Trp	Val	Ala	Glu	Val	Val	Ser	Gln	Gly	Ala	Gly	Ile	Gly	Ile
			200						205					210
Gln	Gly	Thr	Ile	Thr	Ser	Ser	Thr	Ala	Ser	Gly	Asp	Asp	Glu	Glu
			215						220					225
Thr	Thr	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Ile	Thr	Thr	Val
			230						235					240
Gln	Thr	Pro	Gly	Pro	Cys	Ser	Trp	Asn	Phe	Ser	Gly	Pro	Glu	Gly
			245						250					255
Ser	Leu	Asp	Ser	Pro	Thr	Asp	Leu	Ser	Ser	Pro	Thr	Asp	Val	Gly
			260						265					270
Leu	Asp	Cys	Phe	Phe	Tyr	Ile	Ser	Val	Tyr	Pro	Gly	Tyr	Gly	Val
			275						280					285
Glu	Ile	Lys	Val	Lys	Asn	Ile	Ser	Leu	Arg	Glu	Gly	Glu	Thr	Val
			290						295					300
Thr	Val	Glu	Gly	Leu	Gly	Gly	Pro	Asp	Pro	Leu	Pro	Leu	Ala	Asn
			305						310					315
Gln	Ser	Phe	Leu	Leu	Arg	Gly	Gln	Val	Ile	Arg	Ser	Pro	Thr	His
			320						325					330
Gln	Ala	Ala	Leu	Arg	Phe	Gln	Ser	Leu	Pro	Pro	Pro	Ala	Gly	Pro
			335						340					345
Gly	Thr	Phe	His	Phe	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	His
			350						355					360

Phe	Pro	Arg	Arg	Pro	Ala	Tyr	Gly	Asp	Val	Thr	Val	Thr	Ser	Leu	365	370	375
His	Pro	Gly	Gly	Ser	Ala	Arg	Phe	His	Cys	Ala	Thr	Gly	Tyr	Gln	380	385	390
Leu	Lys	Gly	Ala	Arg	His	Leu	Thr	Cys	Leu	Asn	Ala	Thr	Gln	Pro	395	400	405
Phe	Trp	Asp	Ser	Lys	Glu	Pro	Val	Cys	Ile	Gly	Glu	Cys	Pro	Gly	410	415	420
Val	Ile	Arg	Asn	Ala	Thr	Thr	Gly	Arg	Ile	Val	Ser	Pro	Gly	Phe	425	430	435
Pro	Gly	Asn	Tyr	Ser	Asn	Asn	Leu	Thr	Cys	His	Trp	Leu	Leu	Glu	440	445	450
Ala	Pro	Glu	Gly	Gln	Arg	Leu	His	Leu	His	Phe	Glu	Lys	Val	Ser	455	460	465
Leu	Ala	Glu	Asp	Asp	Asp	Arg	Leu	Ile	Ile	Arg	Asn	Gly	Asp	Asn	470	475	480
Val	Glu	Ala	Pro	Pro	Val	Tyr	Asp	Ser	Tyr	Glu	Val	Glu	Tyr	Leu	485	490	495
Pro	Ile	Glu	Gly	Leu	Leu	Ser	Ser	Gly	Lys	His	Phe	Phe	Val	Glu	500	505	510
Leu	Ser	Thr	Asp	Ser	Ser	Gly	Ala	Ala	Ala	Gly	Met	Ala	Leu	Arg	515	520	525
Tyr	Glu	Ala	Phe	Gln	Gln	Gly	His	Cys	Tyr	Glu	Pro	Phe	Val	Lys	530	535	540
Tyr	Gly	Asn	Phe	Ser	Ser	Ser	Thr	Pro	Thr	Tyr	Pro	Val	Gly	Thr	545	550	555
Thr	Val	Glu	Phe	Ser	Cys	Asp	Pro	Gly	Tyr	Thr	Leu	Glu	Gln	Gly	560	565	570
Ser	Ile	Ile	Ile	Glu	Cys	Val	Asp	Pro	His	Asp	Pro	Gln	Trp	Asn	575	580	585
Glu	Thr	Glu	Pro	Ala	Cys	Arg	Ala	Val	Cys	Ser	Gly	Glu	Ile	Thr	590	595	600
Asp	Ser	Ala	Gly	Val	Val	Leu	Ser	Pro	Asn	Trp	Pro	Glu	Pro	Tyr	605	610	615
Gly	Arg	Gly	Gln	Asp	Cys	Ile	Trp	Gly	Val	His	Val	Glu	Glu	Asp	620	625	630
Lys	Arg	Ile	Met	Leu	Asp	Ile	Arg	Val	Leu	Arg	Ile	Gly	Pro	Gly	635	640	645
Asp	Val	Leu	Thr	Phe	Tyr	Asp	Gly	Asp	Asp	Leu	Thr	Ala	Arg	Val			

650	655	660
Leu Gly Gln Tyr Ser Gly Pro Arg Ser	His Phe Lys Leu Phe Thr	
665	670	675
Ser Met Ala Asp Val Thr Ile Gln Phe	Gln Ser Asp Pro Gly Thr	
680	685	690
Ser Val Leu Gly Tyr Gln Gln Gly Phe	Val Ile His Phe Phe Glu	
695	700	705
Val Pro Arg Asn Asp Thr Cys Pro Glu	Leu Pro Glu Ile Pro Asn	
710	715	720
Gly Trp Lys Ser Pro Ser Gln Pro Glu	Leu Val His Gly Thr Val	
725	730	735
Val Thr Tyr Gln Cys Tyr Pro Gly Tyr	Gln Val Val Gly Ser Ser	
740	745	750
Val Leu Met Cys Gln Trp Asp Leu Thr	Trp Ser Glu Asp Leu Pro	
755	760	765
Ser Cys Gln Arg Val Thr Ser Cys His	Asp Pro Gly Asp Val Glu	
770	775	780
His Ser Arg Arg Leu Ile Ser Ser Pro	Lys Phe Pro Val Gly Ala	
785	790	795
Thr Val Gln Tyr Ile Cys Asp Gln Gly	Phe Val Leu Met Gly Ser	
800	805	810
Ser Ile Leu Thr Cys His Asp Arg Gln	Ala Gly Ser Pro Lys Trp	
815	820	825
Ser Asp Arg Ala Pro Lys Cys Leu Leu	Glu Gln Leu Lys Pro Cys	
830	835	840
His Gly Leu Ser Ala Pro Glu Asn Gly	Ala Arg Ser Pro Glu Lys	
845	850	855
Gln Leu His Pro Ala Gly Ala Thr Ile	His Phe Ser Cys Ala Pro	
860	865	870
Gly Tyr Val Leu Lys Gly Gln Ala Ser	Ile Lys Cys Val Pro Gly	
875	880	885
His Pro Ser His Trp Ser Asp Pro Pro	Pro Ile Cys Arg Ala Ala	
890	895	900
Ser Leu Asp Gly Ser Thr Thr Val Ala	Ala Trp Met Val Ala Lys	
905	910	915
Ala Pro Ala Ala Ser Ser Thr Leu Asp	Ala Ala His Ile Ala Ala	
920	925	930
Ala Ile Phe Leu Pro Leu Val Ala Met	Val Leu Leu Val Gly Gly	
935	940	945

Val Tyr Phe Tyr Phe Ser Arg Leu Gln Gly Lys Ser Ser Leu Gln
 950 955 960

Leu Pro Arg Pro Arg Pro Arg Pro Tyr Asn Arg Ile Thr Ile Glu
 965 970 975

Ser Ala Phe Asp Asn Pro Thr Tyr Glu Thr Gly Ser Leu Ser Phe
 980 985 990

Ala Gly Asp Glu Arg Ile
 995

<210> 152

<211> 844

<212> PRT

<213> Homo sapien

<400> 152

Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser
 1 5 10 15

Gly Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly
 20 25 30

Ala Pro Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser
 35 40 45

Glu Ala Pro Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly
 50 55 60

Gly Ala Gly Ala Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg
 65 70 75

Lys Leu Gln Asn Phe Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly
 80 85 90

Trp Ala Phe Ile Tyr His Ala Tyr Val Phe Leu Leu Val Phe Ser
 95 100 105

Cys Leu Val Leu Ser Val Phe Ser Thr Ile Lys Glu Tyr Glu Lys
 110 115 120

Ser Ser Glu Gly Ala Leu Tyr Ile Leu Glu Ile Val Thr Ile Val
 125 130 135

Val Phe Gly Val Glu Tyr Phe Val Arg Ile Trp Ala Ala Gly Cys
 140 145 150

Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg Leu Lys Phe Ala Arg
 155 160 165

Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu Ile Ala Ser Ile
 170 175 180

Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe Ala Thr Ser
 185 190 195

Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met Ile Arg

200	205	210
Met Asp Arg Arg Gly Gly Thr Trp Lys	Leu Leu Gly Ser Val Val	
215	220	225
Tyr Ala His Ser Lys Glu Leu Val Thr	Ala Trp Tyr Ile Gly Phe	
230	235	240
Leu Cys Leu Ile Leu Ala Ser Phe Leu	Val Tyr Leu Ala Glu Lys	
245	250	255
Gly Glu Asn Asp His Phe Asp Thr Tyr	Ala Asp Ala Leu Trp Trp	
260	265	270
Gly Leu Ile Thr Leu Thr Thr Ile Gly	Tyr Gly Asp Lys Tyr Pro	
275	280	285
Gln Thr Trp Asn Gly Arg Leu Leu Ala	Ala Thr Phe Thr Leu Ile	
290	295	300
Gly Val Ser Phe Phe Ala Leu Pro Ala	Gly Ile Leu Gly Ser Gly	
305	310	315
Phe Ala Leu Lys Val Gln Glu Gln His	Arg Gln Lys His Phe Glu	
320	325	330
Lys Arg Arg Asn Pro Ala Ala Gly Leu	Ile Gln Ser Ala Trp Arg	
335	340	345
Phe Tyr Ala Thr Asn Leu Ser Arg Thr	Asp Leu His Ser Thr Trp	
350	355	360
Gln Tyr Tyr Glu Arg Thr Val Thr Val	Pro Met Tyr Arg Leu Ile	
365	370	375
Pro Pro Leu Asn Gln Leu Glu Leu Leu	Arg Asn Leu Lys Ser Lys	
380	385	390
Ser Gly Leu Ala Phe Arg Lys Asp Pro	Pro Pro Glu Pro Ser Pro	
395	400	405
Ser Gln Lys Val Ser Leu Lys Asp Arg	Val Phe Ser Ser Pro Arg	
410	415	420
Gly Val Ala Ala Lys Gly Lys Gly Ser	Pro Gln Ala Gln Thr Val	
425	430	435
Arg Arg Ser Pro Ser Ala Asp Gln Ser	Leu Glu Asp Ser Pro Ser	
440	445	450
Lys Val Pro Lys Ser Trp Ser Phe Gly	Asp Arg Ser Arg Ala Arg	
455	460	465
Gln Ala Phe Arg Ile Lys Gly Ala Ala	Ser Arg Gln Asn Ser Glu	
470	475	480
Glu Ala Ser Leu Pro Gly Glu Asp Ile	Val Asp Asp Lys Ser Cys	
485	490	495

Pro Cys Glu Phe Val Thr Glu Asp Leu Thr Pro Gly Leu Lys Val	500	505	510
Ser Ile Arg Ala Val Cys Val Met Arg Phe Leu Val Ser Lys Arg	515	520	525
Lys Phe Lys Glu Ser Leu Arg Pro Tyr Asp Val Met Asp Val Ile	530	535	540
Glu Gln Tyr Ser Ala Gly His Leu Asp Met Leu Ser Arg Ile Lys	545	550	555
Ser Leu Gln Ser Arg Val Asp Gln Ile Val Gly Arg Gly Pro Ala	560	565	570
Ile Thr Asp Lys Asp Arg Thr Lys Gly Pro Ala Glu Ala Glu Leu	575	580	585
Pro Glu Asp Pro Ser Met Met Gly Arg Leu Gly Lys Val Glu Lys	590	595	600
Gln Val Leu Ser Met Glu Lys Lys Leu Asp Phe Leu Val Asn Ile	605	610	615
Tyr Met Gln Arg Met Gly Ile Pro Pro Thr Glu Thr Glu Ala Tyr	620	625	630
Phe Gly Ala Lys Glu Pro Glu Pro Ala Pro Pro Tyr His Ser Pro	635	640	645
Glu Asp Ser Arg Glu His Val Asp Arg His Gly Cys Ile Val Lys	650	655	660
Ile Val Arg Ser Ser Ser Ser Thr Gly Gln Lys Asn Phe Ser Ala	665	670	675
Pro Pro Ala Ala Pro Pro Val Gln Cys Pro Pro Ser Thr Ser Trp	680	685	690
Gln Pro Gln Ser His Pro Arg Gln Gly His Gly Thr Ser Pro Val	695	700	705
Gly Asp His Gly Ser Leu Val Arg Ile Pro Pro Pro Pro Ala His	710	715	720
Glu Arg Ser Leu Ser Ala Tyr Gly Gly Gly Asn Arg Ala Ser Met	725	730	735
Glu Phe Leu Arg Gln Glu Asp Thr Pro Gly Cys Arg Pro Pro Glu	740	745	750
Gly Thr Leu Arg Asp Ser Asp Thr Ser Ile Ser Ile Pro Ser Val	755	760	765
Asp His Glu Glu Leu Glu Arg Ser Phe Ser Gly Phe Ser Ile Ser	770	775	780
Gln Ser Lys Glu Asn Leu Asp Ala Leu Asn Ser Cys Tyr Ala Ala			

785	790	795
Val Ala Pro Cys	Ala Lys Val Arg Pro Tyr Ile Ala Glu Gly Glu	
800	805	810
Ser Asp Thr Asp	Ser Asp Leu Cys Thr Pro Cys Gly Pro Pro Pro	
815	820	825
Arg Ser Ala Thr	Gly Glu Gly Pro Phe Gly Asp Val Gly Trp Ala	
830	835	840
Gly Pro Arg Lys		

<210> 153
 <211> 415
 <212> PRT
 <213> Homo sapien

<400> 153

Met Val Phe Ala His Arg Met Asp Asn Ser Lys Pro His Leu Ile		
1	5	10
Ile Pro Thr Leu Leu Val Pro Leu Gln Asn Arg Ser Cys Thr Glu		
20	25	30
Thr Ala Thr Pro Leu Pro Ser Gln Tyr Leu Met Glu Leu Ser Glu		
35	40	45
Glu His Ser Trp Met Ser Asn Gln Thr Asp Leu His Tyr Val Leu		
50	55	60
Lys Pro Gly Glu Val Ala Thr Ala Ser Ile Phe Phe Gly Ile Leu		
65	70	75
Trp Leu Phe Ser Ile Phe Gly Asn Ser Leu Val Cys Leu Val Ile		
80	85	90
His Arg Ser Arg Arg Thr Gln Ser Thr Thr Asn Tyr Phe Val Val		
95	100	105
Ser Met Ala Cys Ala Asp Leu Leu Ile Ser Val Ala Ser Thr Pro		
110	115	120
Phe Val Leu Leu Gln Phe Thr Thr Gly Arg Trp Thr Leu Gly Ser		
125	130	135
Ala Thr Cys Lys Val Val Arg Tyr Phe Gln Tyr Leu Thr Pro Gly		
140	145	150
Val Gln Ile Tyr Val Leu Leu Ser Ile Cys Ile Asp Arg Phe Tyr		
155	160	165
Thr Ile Val Tyr Pro Leu Ser Phe Lys Val Ser Arg Glu Lys Ala		
170	175	180
Lys Lys Met Ile Ala Ala Ser Trp Ile Phe Asp Ala Gly Phe Val		
185	190	195

Thr	Pro	Val	Leu	Phe	Phe	Tyr	Gly	Ser	Asn	Trp	Asp	Ser	His	Cys	
				200					205					210	
Asn	Tyr	Phe	Leu	Pro	Ser	Ser	Trp	Glu	Gly	Thr	Ala	Tyr	Thr	Val	
				215					220					225	
Ile	His	Phe	Leu	Val	Gly	Phe	Val	Ile	Pro	Ser	Val	Leu	Ile	Ile	
				230					235					240	
Leu	Phe	Tyr	Gln	Lys	Val	Ile	Lys	Tyr	Ile	Trp	Arg	Ile	Gly	Thr	
				245					250					255	
Asp	Gly	Arg	Thr	Val	Arg	Arg	Thr	Met	Asn	Ile	Val	Pro	Arg	Thr	
				260					265					270	
Lys	Val	Lys	Thr	Ile	Lys	Met	Phe	Leu	Ile	Leu	Asn	Leu	Leu	Phe	
				275					280					285	
Leu	Leu	Ser	Trp	Leu	Pro	Phe	His	Val	Ala	Gln	Leu	Trp	His	Pro	
				290					295					300	
His	Glu	Gln	Asp	Tyr	Lys	Lys	Ser	Ser	Leu	Val	Phe	Thr	Ala	Ile	
				305					310					315	
Thr	Trp	Ile	Ser	Phe	Ser	Ser	Ser	Ala	Ser	Lys	Pro	Thr	Leu	Tyr	
				320					325					330	
Ser	Ile	Tyr	Asn	Ala	Asn	Phe	Arg	Arg	Gly	Met	Lys	Glu	Thr	Phe	
				335					340					345	
Cys	Met	Ser	Ser	Met	Lys	Cys	Tyr	Arg	Ser	Asn	Ala	Tyr	Thr	Ile	
				350					355					360	
Thr	Thr	Ser	Ser	Arg	Met	Ala	Lys	Lys	Asn	Tyr	Val	Gly	Ile	Ser	
				365					370					375	
Glu	Ile	Pro	Ser	Met	Ala	Lys	Thr	Ile	Thr	Lys	Asp	Ser	Ile	Tyr	
				380					385					390	
Asp	Ser	Phe	Asp	Arg	Glu	Ala	Lys	Glu	Lys	Lys	Leu	Ala	Trp	Pro	
				395					400					405	
Ile	Asn	Ser	Asn	Pro	Pro	Asn	Thr	Phe	Val						
				410					415						

<210> 154
 <211> 842
 <212> PRT
 <213> Homo sapien

<400> 154
 Met Ala Val Arg Pro Gly Leu Trp Pro Ala Leu Leu Gly Ile Val
 1 5 10 15
 Leu Ala Ala Trp Leu Arg Gly Ser Gly Ala Gln Gln Ser Ala Thr
 20 25 30
 Val Ala Asn Pro Val Pro Gly Ala Asn Pro Asp Leu Leu Pro His

	35	40	45
Phe Leu Val Glu Pro Glu Asp Val Tyr Ile Val Lys Asn Lys Pro	50	55	60
Val Leu Leu Val Cys Lys Ala Val Pro Ala Thr Gln Ile Phe Phe	65	70	75
Lys Cys Asn Gly Glu Trp Val Arg Gln Val Asp His Val Ile Glu	80	85	90
Arg Ser Thr Asp Gly Ser Ser Gly Leu Pro Thr Met Glu Val Arg	95	100	105
Ile Asn Val Ser Arg Gln Gln Val Glu Lys Val Phe Gly Leu Glu	110	115	120
Glu Tyr Trp Cys Gln Cys Val Ala Trp Ser Ser Ser Gly Thr Thr	125	130	135
Lys Ser Gln Lys Ala Tyr Ile Arg Ile Ala Tyr Leu Arg Lys Asn	140	145	150
Phe Glu Gln Glu Pro Leu Ala Lys Glu Val Ser Leu Glu Gln Gly	155	160	165
Ile Val Leu Pro Cys Arg Pro Pro Glu Gly Ile Pro Pro Ala Glu	170	175	180
Val Glu Trp Leu Arg Asn Glu Asp Leu Val Asp Pro Ser Leu Asp	185	190	195
Pro Asn Val Tyr Ile Thr Arg Glu His Ser Leu Val Val Arg Gln	200	205	210
Ala Arg Leu Ala Asp Thr Ala Asn Tyr Thr Cys Val Ala Lys Asn	215	220	225
Ile Val Ala Arg Arg Arg Ser Ala Ser Ala Ala Val Ile Val Tyr	230	235	240
Val Asp Gly Ser Trp Ser Pro Trp Ser Lys Trp Ser Ala Cys Gly	245	250	255
Leu Asp Cys Thr His Trp Arg Ser Arg Glu Cys Ser Asp Pro Ala	260	265	270
Pro Arg Asn Gly Gly Glu Glu Cys Gln Gly Thr Asp Leu Asp Thr	275	280	285
Arg Asn Cys Thr Ser Asp Leu Cys Val His Thr Ala Ser Gly Pro	290	295	300
Glu Asp Val Ala Leu Tyr Val Gly Leu Ile Ala Val Ala Val Cys	305	310	315
Leu Val Leu Leu Leu Leu Val Leu Ile Leu Val Tyr Cys Arg Lys	320	325	330

Lys Glu Gly Leu Asp Ser Asp Val Ala Asp Ser Ser Ile Leu Thr	335	340	345
Ser Gly Phe Gln Pro Val Ser Ile Lys Pro Ser Lys Ala Asp Asn	350	355	360
Pro His Leu Leu Thr Ile Gln Pro Asp Leu Ser Thr Thr Thr Thr	365	370	375
Thr Tyr Gln Gly Ser Leu Cys Pro Arg Gln Asp Gly Pro Ser Pro	380	385	390
Lys Phe Gln Leu Thr Asn Gly His Leu Leu Ser Pro Leu Gly Gly	395	400	405
Gly Arg His Thr Leu His His Ser Ser Pro Thr Ser Glu Ala Glu	410	415	420
Glu Phe Val Ser Arg Leu Ser Thr Gln Asn Tyr Phe Arg Ser Leu	425	430	435
Pro Arg Gly Thr Ser Asn Met Thr Tyr Gly Thr Phe Asn Phe Leu	440	445	450
Gly Gly Arg Leu Met Ile Pro Asn Thr Gly Ile Ser Leu Leu Ile	455	460	465
Pro Pro Asp Ala Ile Pro Arg Gly Lys Ile Tyr Glu Ile Tyr Leu	470	475	480
Thr Leu His Lys Pro Glu Asp Val Arg Leu Pro Leu Ala Gly Cys	485	490	495
Gln Thr Leu Leu Ser Pro Ile Val Ser Cys Gly Pro Pro Gly Val	500	505	510
Leu Leu Thr Arg Pro Val Ile Leu Ala Met Asp His Cys Gly Glu	515	520	525
Pro Ser Pro Asp Ser Trp Ser Leu Arg Leu Lys Lys Gln Ser Cys	530	535	540
Glu Gly Ser Trp Glu Asp Val Leu His Leu Gly Glu Glu Ala Pro	545	550	555
Ser His Leu Tyr Tyr Cys Gln Leu Glu Ala Ser Ala Cys Tyr Val	560	565	570
Phe Thr Glu Gln Leu Gly Arg Phe Ala Leu Val Gly Glu Ala Leu	575	580	585
Ser Val Ala Ala Ala Lys Arg Leu Lys Leu Leu Leu Phe Ala Pro	590	595	600
Val Ala Cys Thr Ser Leu Glu Tyr Asn Ile Arg Val Tyr Cys Leu	605	610	615
His Asp Thr His Asp Ala Leu Lys Glu Val Val Gln Leu Glu Lys			

620	625	630
Gln Leu Gly Gly Gln Leu Ile Gln Glu	Pro Arg Val Leu His Phe	
635	640	645
Lys Asp Ser Tyr His Asn Leu Arg Leu	Ser Ile His Asp Val Pro	
650	655	660
Ser Ser Leu Trp Lys Ser Lys Leu Leu	Val Ser Tyr Gln Glu Ile	
665	670	675
Pro Phe Tyr His Ile Trp Asn Gly Thr	Gln Arg Tyr Leu His Cys	
680	685	690
Thr Phe Thr Leu Glu Arg Val Ser Pro	Ser Thr Ser Asp Leu Ala	
695	700	705
Cys Lys Leu Trp Val Trp Gln Val Glu	Gly Asp Gly Gln Ser Phe	
710	715	720
Ser Ile Asn Phe Asn Ile Thr Lys Asp	Thr Arg Phe Ala Glu Leu	
725	730	735
Leu Ala Leu Glu Ser Glu Ala Gly Val	Pro Ala Leu Val Gly Pro	
740	745	750
Ser Ala Phe Lys Ile Pro Phe Leu Ile	Arg Gln Lys Ile Ile Ser	
755	760	765
Ser Leu Asp Pro Pro Cys Arg Arg Gly	Ala Asp Trp Arg Thr Leu	
770	775	780
Ala Gln Lys Leu His Leu Asp Ser His	Leu Ser Phe Phe Ala Ser	
785	790	795
Lys Pro Ser Pro Thr Ala Met Ile Leu	Asn Leu Trp Glu Ala Arg	
800	805	810
His Phe Pro Asn Gly Asn Leu Ser Gln	Leu Ala Ala Ala Val Ala	
815	820	825
Gly Leu Gly Gln Pro Asp Ala Gly Leu	Phe Thr Val Ser Glu Ala	
830	835	840

Glu Cys

<210> 155
 <211> 1366
 <212> PRT
 <213> Homo sapien

<400> 155
 Met Ala Gln Ala Leu Leu Val Pro Pro Gly Pro Glu Ser Phe Arg
 1 5 10 15
 Leu Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Lys Arg Ala Ala
 20 25 30

Glu	Glu	Lys	Ala	Lys	Lys	Pro	Lys	Lys	Glu	Gln	Asp	Asn	Asp	Asp		35	40	45
Glu	Asn	Lys	Pro	Lys	Pro	Asn	Ser	Asp	Leu	Glu	Ala	Gly	Lys	Asn		50	55	60
Leu	Pro	Phe	Ile	Tyr	Gly	Asp	Ile	Pro	Pro	Glu	Met	Val	Ser	Glu		65	70	75
Pro	Leu	Glu	Asp	Leu	Asp	Pro	Tyr	Tyr	Ile	Asn	Lys	Lys	Thr	Phe		80	85	90
Ile	Val	Met	Asn	Lys	Gly	Lys	Ala	Ile	Phe	Arg	Phe	Ser	Ala	Thr		95	100	105
Ser	Ala	Leu	Tyr	Ile	Leu	Thr	Pro	Leu	Asn	Pro	Val	Arg	Lys	Ile		110	115	120
Ala	Ile	Lys	Ile	Leu	Val	His	Ser	Leu	Phe	Ser	Met	Leu	Ile	Met		125	130	135
Cys	Thr	Ile	Leu	Thr	Asn	Cys	Val	Phe	Met	Thr	Leu	Ser	Asn	Pro		140	145	150
Pro	Asp	Trp	Thr	Lys	Asn	Val	Glu	Tyr	Thr	Phe	Thr	Gly	Ile	Tyr		155	160	165
Thr	Phe	Glu	Ser	Leu	Ile	Lys	Ile	Leu	Val	Arg	Gly	Phe	Cys	Leu		170	175	180
Glu	Asp	Phe	Thr	Phe	Leu	Arg	Asp	Pro	Trp	Asn	Trp	Leu	Asp	Phe		185	190	195
Ser	Val	Ile	Val	Met	Ala	Tyr	Val	Thr	Glu	Phe	Val	Ser	Leu	Gly		200	205	210
Asn	Val	Ser	Ala	Leu	Arg	Thr	Phe	Arg	Val	Leu	Arg	Ala	Leu	Lys		215	220	225
Thr	Ile	Ser	Val	Ile	Pro	Gly	Leu	Lys	Thr	Ile	Val	Gly	Ala	Leu		230	235	240
Ile	Gln	Ser	Val	Lys	Lys	Leu	Ser	Asp	Val	Met	Ile	Leu	Thr	Val		245	250	255
Phe	Cys	Leu	Ser	Val	Phe	Ala	Leu	Ile	Gly	Leu	Gln	Leu	Phe	Met		260	265	270
Gly	Asn	Leu	Arg	Asn	Lys	Cys	Leu	Gln	Trp	Pro	Pro	Ser	Asp	Ser		275	280	285
Ala	Phe	Glu	Thr	Asn	Thr	Thr	Ser	Tyr	Phe	Asn	Gly	Thr	Met	Asp		290	295	300
Ser	Asn	Gly	Thr	Phe	Val	Asn	Val	Thr	Met	Ser	Thr	Phe	Asn	Trp		305	310	315
Lys	Asp	Asn	Ile	Gly	Asp	Asp	Ser	His	Phe	Tyr	Val	Leu	Asp	Gly				

320	325	330
Gln Lys Asp Pro Leu Leu Cys Gly Asn Gly Ser Asp Ala Gly Gln		
335	340	345
Cys Pro Glu Gly Tyr Ile Cys Val Lys Ala Gly Arg Asn Pro Asn		
350	355	360
Tyr Gly Tyr Thr Ser Phe Asp Thr Phe Ser Trp Ala Phe Leu Ser		
365	370	375
Leu Phe Arg Leu Met Thr Gln Asp Tyr Trp Glu Asn Leu Tyr Gln		
380	385	390
Leu Thr Leu Arg Ala Ala Gly Lys Thr Tyr Thr Ile Phe Phe Val		
395	400	405
Leu Val Ile Phe Leu Gly Ser Phe Tyr Leu Val Asn Leu Ile Leu		
410	415	420
Ala Val Val Ala Met Ala Tyr Glu Glu Gln Asn Gln Ala Thr Leu		
425	430	435
Glu Glu Ala Glu Gln Lys Glu Ala Glu Phe Gln Gln Met Leu Glu		
440	445	450
Gln Leu Lys Lys Gln Gln Glu Glu Ala Gln Ala Val Ala Ala Ala		
455	460	465
Ser Ala Ala Ser Arg Asp Phe Ser Gly Ile Gly Gly Leu Gly Glu		
470	475	480
Leu Leu Glu Ser Ser Ser Glu Ala Ser Lys Leu Ser Ser Lys Ser		
485	490	495
Ala Lys Glu Trp Arg Asn Arg Arg Lys Lys Arg Arg Gln Arg Glu		
500	505	510
His Leu Glu Gly Asn Asn Lys Gly Glu Arg Asp Ser Phe Pro Lys		
515	520	525
Ser Glu Ser Glu Asp Ser Val Lys Arg Ser Ser Phe Leu Phe Ser		
530	535	540
Met Asp Gly Asn Arg Leu Thr Ser Asp Lys Lys Phe Cys Ser Pro		
545	550	555
His Gln Ser Leu Leu Ser Ile Arg Gly Ser Leu Phe Ser Pro Arg		
560	565	570
Arg Asn Ser Lys Thr Ser Ile Phe Ser Phe Arg Gly Arg Ala Lys		
575	580	585
Asp Val Gly Ser Glu Asn Asp Phe Ala Asp Asp Glu His Ser Thr		
590	595	600
Phe Glu Asp Ser Glu Thr Arg Arg Asp Ser Leu Phe Glu Pro His		
605	610	615

Arg	His	Gly	Glu	Arg	Arg	Asn	Ser	Asn	Gly	Thr	Thr	Thr	Glu	Thr	620	625	630
Glu	Val	Arg	Lys	Arg	Arg	Leu	Ser	Ser	Tyr	Gln	Ile	Ser	Met	Glu	635	640	645
Met	Leu	Glu	Asp	Ser	Ser	Gly	Arg	Gln	Arg	Ala	Val	Ser	Ile	Ala	650	655	660
Ser	Ile	Leu	Thr	Asn	Thr	Met	Glu	Glu	Leu	Glu	Glu	Ser	Arg	Gln	665	670	675
Lys	Cys	Pro	Pro	Cys	Trp	Tyr	Arg	Phe	Ala	Asn	Val	Phe	Leu	Ile	680	685	690
Trp	Asp	Cys	Cys	Asp	Ala	Trp	Leu	Lys	Val	Lys	His	Leu	Val	Asn	695	700	705
Leu	Ile	Val	Met	Asp	Pro	Phe	Val	Asp	Leu	Ala	Ile	Thr	Ile	Cys	710	715	720
Ile	Val	Leu	Asn	Thr	Leu	Phe	Met	Ala	Met	Glu	His	Tyr	Pro	Met	725	730	735
Thr	Glu	Gln	Phe	Ser	Ser	Val	Leu	Thr	Val	Gly	Asn	Leu	Val	Phe	740	745	750
Thr	Gly	Ile	Phe	Thr	Ala	Glu	Met	Val	Leu	Lys	Ile	Ile	Ala	Met	755	760	765
Asp	Pro	Tyr	Tyr	Tyr	Phe	Gln	Glu	Gly	Trp	Asn	Ile	Phe	Asp	Gly	770	775	780
Ile	Ile	Val	Ser	Leu	Ser	Leu	Met	Glu	Leu	Gly	Leu	Ser	Asn	Val	785	790	795
Glu	Gly	Leu	Ser	Val	Leu	Arg	Ser	Phe	Arg	Leu	Leu	Arg	Val	Phe	800	805	810
Lys	Leu	Ala	Lys	Ser	Trp	Pro	Thr	Leu	Asn	Met	Leu	Ile	Lys	Ile	815	820	825
Ile	Gly	Asn	Ser	Val	Gly	Ala	Leu	Gly	Asn	Leu	Thr	Leu	Val	Leu	830	835	840
Ala	Ile	Ile	Val	Phe	Ile	Phe	Ala	Val	Val	Gly	Met	Gln	Leu	Phe	845	850	855
Gly	Lys	Ser	Tyr	Lys	Glu	Cys	Val	Cys	Lys	Ile	Asn	Asp	Asp	Cys	860	865	870
Thr	Leu	Pro	Arg	Trp	His	Met	Asn	Asp	Phe	Phe	His	Ser	Phe	Leu	875	880	885
Ile	Val	Phe	Arg	Val	Leu	Cys	Gly	Glu	Trp	Ile	Glu	Thr	Met	Trp	890	895	900
Asp	Cys	Met	Glu	Val	Ala	Gly	Gln	Thr	Met	Cys	Leu	Ile	Val	Phe			

905										910					915				
Met	Leu	Val	Met	Val	Ile	Gly	Asn	Leu	Val	Val	Leu	Asn	Leu	Phe					
				920									925					930	
Leu	Ala	Leu	Leu	Leu	Ser	Ser	Phe	Ser	Ser	Asp	Asn	Leu	Ala	Ala					
				935									940					945	
Thr	Asp	Asp	Asp	Asn	Glu	Met	Asn	Asn	Leu	Gln	Ile	Ala	Val	Gly					
				950									955					960	
Arg	Met	Gln	Lys	Gly	Ile	Asp	Tyr	Val	Lys	Asn	Lys	Met	Arg	Glu					
				965									970					975	
Cys	Phe	Gln	Lys	Ala	Phe	Phe	Arg	Lys	Pro	Lys	Val	Ile	Glu	Ile					
				980									985					990	
His	Glu	Gly	Asn	Lys	Ile	Asp	Ser	Cys	Met	Ser	Asn	Asn	Thr	Gly					
				995					1000					1005					
Ile	Glu	Ile	Ser	Lys	Ala	Leu	Asn	Tyr	Leu	Arg	Asp	Gly	Asn	Gly					
				1010					1015					1020					
Thr	Thr	Ser	Gly	Val	Gly	Thr	Gly	Ser	Ser	Val	Glu	Lys	Tyr	Val					
				1025					1030					1035					
Ile	Asp	Glu	Asn	Asp	Tyr	Met	Ser	Phe	Ile	Asn	Asn	Pro	Ser	Leu					
				1040					1045					1050					
Thr	Val	Thr	Val	Pro	Ile	Ala	Val	Gly	Glu	Ser	Asp	Phe	Glu	Asn					
				1055					1060					1065					
Leu	Asn	Thr	Glu	Glu	Phe	Ser	Ser	Glu	Ser	Glu	Leu	Glu	Glu	Ser					
				1070					1075					1080					
Lys	Glu	Lys	Leu	Asn	Ala	Thr	Ser	Ser	Ser	Glu	Gly	Ser	Thr	Val					
				1085					1090					1095					
Asp	Val	Val	Leu	Pro	Arg	Glu	Gly	Glu	Gln	Ala	Glu	Thr	Glu	Pro					
				1100					1105					1110					
Glu	Glu	Asp	Leu	Lys	Pro	Glu	Ala	Cys	Phe	Thr	Glu	Gly	Cys	Ile					
				1115					1120					1125					
Lys	Lys	Phe	Pro	Phe	Cys	Gln	Val	Ser	Thr	Glu	Glu	Gly	Lys	Gly					
				1130					1135					1140					
Lys	Ile	Trp	Trp	Asn	Leu	Arg	Lys	Thr	Cys	Tyr	Ser	Ile	Val	Glu					
				1145					1150					1155					
His	Asn	Trp	Phe	Glu	Thr	Phe	Ile	Val	Phe	Met	Ile	Leu	Leu	Ser					
				1160					1165					1170					
Ser	Gly	Ala	Leu	Ala	Phe	Glu	Asp	Ile	Tyr	Ile	Glu	Gln	Arg	Lys					
				1175					1180					1185					
Thr	Ile	Lys	Thr	Met	Leu	Glu	Tyr	Ala	Asp	Lys	Val	Phe	Thr	Tyr					
				1190					1195					1200					

Ile Phe Ile Leu Glu Met Leu Leu Lys Trp Val Ala Tyr Gly Phe	1205	1210	1215
Gln Thr Tyr Phe Thr Asn Ala Trp Cys Arg Leu Asp Phe Leu Ile	1220	1225	1230
Val Asp Val Ser Leu Val Ser Leu Val Ala Asn Ala Leu Gly Tyr	1235	1240	1245
Ser Glu Leu Gly Ala Ile Lys Ser Leu Arg Thr Leu Arg Ala Leu	1250	1255	1260
Arg Pro Leu Arg Ala Leu Ser Arg Phe Glu Gly Met Arg Val Val	1265	1270	1275
Val Asn Ala Leu Val Gly Ala Ile Pro Ser Ile Met Asn Val Leu	1280	1285	1290
Leu Val Cys Leu Ile Phe Trp Leu Ile Phe Ser Ile Met Gly Val	1295	1300	1305
Asn Leu Phe Ala Gly Lys Phe Tyr His Cys Val Asn Met Thr Thr	1310	1315	1320
Gly Asn Met Phe Asp Ile Ser Asp Val Asn Asn Leu Ser Asp Cys	1325	1330	1335
Gln Ala Leu Gly Lys Gln Ala Arg Trp Lys Asn Val Lys Val Asn	1340	1345	1350
Phe Asp Asn Val Gly Ala Gly Tyr Leu Ala Leu Leu Gln Val Val	1355	1360	1365

Ser

<210> 156
 <211> 1951
 <212> PRT
 <213> Homo sapien

<400> 156

Met Ala Gln Ala Leu Leu Val Pro Pro Gly Pro Glu Ser Phe Arg	1	5	10	15
Leu Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Lys Arg Ala Ala	20	25	30	
Glu Glu Lys Ala Lys Lys Pro Lys Lys Glu Gln Asp Asn Asp Asp	35	40	45	
Glu Asn Lys Pro Lys Pro Asn Ser Asp Leu Glu Ala Gly Lys Asn	50	55	60	
Leu Pro Phe Ile Tyr Gly Asp Ile Pro Pro Glu Met Val Ser Glu	65	70	75	
Pro Leu Glu Asp Leu Asp Pro Tyr Tyr Ile Asn Lys Lys Thr Phe				

80	85	90
Ile Val Met Asn Lys Gly Lys Ala Ile	Phe Arg Phe Ser Ala Thr	
95	100	105
Ser Ala Leu Tyr Ile Leu Thr Pro Leu	Asn Pro Val Arg Lys Ile	
110	115	120
Ala Ile Lys Ile Leu Val His Ser Leu	Phe Ser Met Leu Ile Met	
125	130	135
Cys Thr Ile Leu Thr Asn Cys Val Phe	Met Thr Leu Ser Asn Pro	
140	145	150
Pro Asp Trp Thr Lys Asn Val Glu Tyr	Thr Phe Thr Gly Ile Tyr	
155	160	165
Thr Phe Glu Ser Leu Ile Lys Ile Leu	Ala Arg Gly Phe Cys Leu	
170	175	180
Glu Asp Phe Thr Phe Leu Arg Asp Pro	Trp Asn Trp Leu Asp Phe	
185	190	195
Ser Val Ile Val Met Ala Tyr Val Thr	Glu Phe Val Asp Leu Gly	
200	205	210
Asn Val Ser Ala Leu Arg Thr Phe Arg	Val Leu Arg Ala Leu Lys	
215	220	225
Thr Ile Ser Val Ile Pro Gly Leu Lys	Thr Ile Val Gly Ala Leu	
230	235	240
Ile Gln Ser Val Lys Lys Leu Ser Asp	Val Met Ile Leu Thr Val	
245	250	255
Phe Cys Leu Ser Val Phe Ala Leu Ile	Gly Leu Gln Leu Phe Met	
260	265	270
Gly Asn Leu Arg Asn Lys Cys Leu Gln	Trp Pro Pro Ser Asp Ser	
275	280	285
Ala Phe Glu Thr Asn Thr Thr Ser Tyr	Phe Asn Gly Thr Met Asp	
290	295	300
Ser Asn Gly Thr Phe Val Asn Val Thr	Met Ser Thr Phe Asn Trp	
305	310	315
Lys Asp Tyr Ile Gly Asp Asp Ser His	Phe Tyr Val Leu Asp Gly	
320	325	330
Gln Lys Asp Pro Leu Leu Cys Gly Asn	Gly Ser Asp Ala Gly Gln	
335	340	345
Cys Pro Glu Gly Tyr Ile Cys Val Lys	Ala Gly Arg Asn Pro Asn	
350	355	360
Tyr Gly Tyr Thr Ser Phe Asp Thr Phe	Ser Trp Ala Phe Leu Ser	
365	370	375

Leu Phe Arg Leu Met Thr Gln Asp Tyr Trp Glu Asn Leu Tyr Gln	380	385	390
Leu Thr Leu Arg Ala Ala Gly Lys Thr Tyr Met Ile Phe Phe Val	395	400	405
Leu Val Ile Phe Leu Gly Ser Phe Tyr Leu Val Asn Leu Ile Leu	410	415	420
Ala Val Val Ala Met Ala Tyr Glu Glu Gln Asn Gln Ala Thr Leu	425	430	435
Glu Glu Ala Glu Gln Lys Glu Ala Glu Phe Gln Gln Met Leu Glu	440	445	450
Gln Leu Lys Lys Gln Gln Glu Glu Ala Gln Ala Val Ala Ala Ala	455	460	465
Ser Ala Ala Ser Arg Asp Phe Ser Gly Val Gly Gly Leu Gly Glu	470	475	480
Leu Leu Glu Ser Ser Ser Glu Ala Ser Lys Leu Ser Ser Lys Gly	485	490	495
Ala Lys Glu Trp Arg Asn Arg Arg Lys Lys Arg Arg Gln Arg Glu	500	505	510
His Leu Glu Gly Asn Asn Lys Gly Glu Arg Asp Ser Phe Pro Lys	515	520	525
Ser Glu Ser Glu Asp Ser Val Lys Arg Ser Ser Phe Leu Phe Ser	530	535	540
Met Asp Gly Asn Arg Leu Thr Ser Asp Lys Lys Phe Cys Ser Pro	545	550	555
His Gln Ser Leu Leu Ser Ile Arg Gly Ser Leu Phe Ser Pro Arg	560	565	570
Arg Asn Ser Lys Thr Ser Ile Phe Ser Phe Arg Gly Arg Ala Lys	575	580	585
Asp Val Gly Ser Glu Asn Asp Phe Ala Asp Asp Glu His Ser Thr	590	595	600
Phe Glu Asp Ser Glu Ser Arg Arg Asp Ser Leu Phe Val Pro His	605	610	615
Arg His Gly Glu Arg Arg Asn Ser Asn Gly Thr Thr Thr Glu Thr	620	625	630
Glu Val Arg Lys Arg Arg Leu Ser Ser Tyr Gln Ile Ser Met Glu	635	640	645
Met Leu Glu Asp Ser Ser Gly Arg Gln Arg Ala Val Ser Ile Ala	650	655	660
Ser Ile Leu Thr Asn Thr Met Glu Glu Leu Glu Glu Ser Arg Gln			

665	670	675
Lys Cys Pro Pro Cys Trp Tyr Arg Phe	Ala Asn Val Phe Leu Ile	
680	685	690
Trp Asp Cys Cys Asp Ala Trp Leu Lys	Val Lys His Leu Val Asn	
695	700	705
Leu Ile Val Met Asp Pro Phe Val Asp	Leu Ala Ile Thr Ile Cys	
710	715	720
Ile Val Leu Asn Thr Leu Phe Met Ala	Met Glu His Tyr Pro Met	
725	730	735
Thr Glu Gln Phe Ser Ser Val Leu Thr	Val Gly Asn Leu Val Phe	
740	745	750
Thr Gly Ile Phe Thr Ala Glu Met Val	Leu Lys Ile Ile Ala Met	
755	760	765
Asp Pro Tyr Tyr Tyr Phe Gln Glu Gly	Trp Asn Ile Phe Asp Gly	
770	775	780
Ile Ile Val Ser Leu Ser Leu Met Glu	Leu Gly Leu Ser Asn Val	
785	790	795
Glu Gly Leu Ser Val Leu Arg Ser Phe	Arg Leu Leu Arg Val Phe	
800	805	810
Lys Leu Ala Lys Ser Trp Pro Thr Leu	Asn Met Leu Ile Lys Ile	
815	820	825
Ile Gly Asn Ser Val Gly Ala Leu Gly	Asn Leu Thr Leu Val Leu	
830	835	840
Ala Ile Ile Val Phe Ile Phe Ala Val	Val Gly Met Gln Leu Phe	
845	850	855
Gly Lys Ser Tyr Lys Glu Cys Val Cys	Lys Ile Asn Asp Asp Cys	
860	865	870
Thr Leu Pro Arg Trp His Met Asn Asp	Phe Phe His Ser Phe Leu	
875	880	885
Ile Val Phe Arg Val Leu Cys Gly Glu	Trp Ile Glu Thr Met Trp	
890	895	900
Asp Cys Met Glu Val Ala Gly Gln Thr	Met Cys Leu Ile Val Phe	
905	910	915
Met Leu Val Met Val Ile Gly Asn Leu	Val Val Leu Asn Leu Phe	
920	925	930
Leu Ala Leu Leu Leu Ser Ser Phe Ser	Ser Asp Asn Leu Ala Ala	
935	940	945
Thr Asp Asp Asp Asn Glu Met Asn Asn	Leu Gln Ile Ala Val Gly	
950	955	960

Arg Met Gln Lys Gly Ile Asp Tyr Val Lys Asn Lys Met Arg Glu	965	970	975
Cys Phe Gln Lys Ala Phe Phe Arg Lys Pro Lys Val Ile Glu Ile	980	985	990
His Glu Gly Asn Lys Ile Asp Ser Cys Met Ser Asn Asn Thr Gly	995	1000	1005
Ile Glu Ile Ser Lys Glu Leu Asn Tyr Leu Arg Asp Gly Asn Gly	1010	1015	1020
Thr Thr Ser Gly Val Gly Thr Gly Ser Ser Val Glu Lys Tyr Val	1025	1030	1035
Ile Asp Glu Asn Asp Tyr Met Ser Phe Ile Asn Asn Pro Ser Leu	1040	1045	1050
Thr Val Thr Val Pro Ile Ala Val Gly Glu Ser Asp Phe Glu Asn	1055	1060	1065
Leu Asn Thr Glu Glu Phe Ser Ser Glu Ser Glu Leu Glu Glu Ser	1070	1075	1080
Lys Glu Lys Leu Asn Ala Thr Ser Ser Ser Glu Gly Ser Thr Val	1085	1090	1095
Asp Val Val Leu Pro Arg Glu Gly Glu Gln Ala Glu Thr Glu Pro	1100	1105	1110
Glu Glu Asp Phe Lys Pro Glu Ala Cys Phe Thr Glu Gly Cys Ile	1115	1120	1125
Lys Lys Phe Pro Phe Cys Gln Val Ser Thr Glu Glu Gly Lys Gly	1130	1135	1140
Lys Ile Trp Trp Asn Leu Arg Lys Thr Cys Tyr Ser Ile Val Glu	1145	1150	1155
His Asn Trp Phe Glu Thr Phe Ile Val Phe Met Ile Leu Leu Ser	1160	1165	1170
Ser Gly Ala Leu Ala Phe Glu Asp Ile Tyr Ile Glu Gln Arg Lys	1175	1180	1185
Thr Ile Lys Thr Met Leu Glu Tyr Ala Asp Lys Val Phe Thr Tyr	1190	1195	1200
Ile Phe Ile Leu Glu Met Leu Leu Lys Trp Val Ala Tyr Gly Phe	1205	1210	1215
Gln Thr Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu Ile	1220	1225	1230
Val Asp Val Ser Leu Val Ser Leu Val Ala Asn Ala Leu Gly Tyr	1235	1240	1245
Ser Glu Leu Gly Ala Ile Lys Ser Leu Arg Thr Leu Arg Ala Leu			

1250	1255	1260
Arg Pro Leu Arg Ala Leu Ser Arg Phe Glu Gly Met Arg Val Val		
1265	1270	1275
Val Asn Ala Leu Val Gly Ala Ile Pro Ser Ile Met Asn Val Leu		
1280	1285	1290
Leu Val Cys Leu Ile Phe Trp Leu Ile Phe Ser Ile Met Gly Val		
1295	1300	1305
Asn Leu Phe Ala Gly Lys Phe Tyr His Cys Val Asn Met Thr Thr		
1310	1315	1320
Gly Asn Met Phe Asp Ile Ser Asp Val Asn Asn Leu Ser Asp Cys		
1325	1330	1335
Gln Ala Leu Gly Lys Gln Ala Arg Trp Lys Asn Val Lys Val Asn		
1340	1345	1350
Phe Asp Asn Val Gly Ala Gly Tyr Leu Ala Leu Leu Gln Val Ala		
1355	1360	1365
Thr Phe Lys Gly Trp Met Asp Ile Met Tyr Ala Ala Val Asp Ser		
1370	1375	1380
Arg Asp Val Lys Leu Gln Pro Val Tyr Glu Glu Asn Leu Tyr Met		
1385	1390	1395
Tyr Leu Tyr Phe Val Ile Phe Ile Ile Phe Gly Ser Phe Phe Thr		
1400	1405	1410
Leu Asn Leu Phe Ile Gly Val Ile Ile Asp Asn Phe Asn Gln Gln		
1415	1420	1425
Lys Lys Lys Phe Gly Gly Gln Asp Ile Phe Met Thr Glu Glu Gln		
1430	1435	1440
Lys Lys Tyr Tyr Asn Ala Met Lys Lys Leu Gly Ser Lys Lys Pro		
1445	1450	1455
Gln Lys Pro Ile Pro Arg Pro Ala Asn Lys Phe Gln Gly Met Val		
1460	1465	1470
Phe Asp Phe Val Thr Arg Gln Val Phe Asp Ile Ser Ile Met Ile		
1475	1480	1485
Leu Ile Cys Leu Asn Met Val Thr Met Met Val Glu Thr Asp Asp		
1490	1495	1500
Gln Gly Lys Tyr Met Thr Leu Val Leu Ser Arg Ile Asn Leu Val		
1505	1510	1515
Phe Ile Val Leu Phe Thr Gly Glu Phe Val Leu Lys Leu Val Ser		
1520	1525	1530
Leu Arg His Tyr Tyr Phe Thr Ile Gly Trp Asn Ile Phe Asp Phe		
1535	1540	1545

Val Val Val Ile Leu Ser Ile Val Gly Met Phe Leu Ala Glu Met	1550	1555	1560
Ile Glu Lys Tyr Ser Val Ser Pro Thr Leu Phe Arg Val Ile Arg	1565	1570	1575
Leu Ala Arg Ile Gly Arg Ile Leu Arg Leu Ile Lys Gly Ala Lys	1580	1585	1590
Gly Ile Arg Thr Leu Leu Phe Ala Leu Met Met Ser Leu Pro Ala	1595	1600	1605
Leu Phe Asn Ile Gly Leu Leu Leu Phe Leu Val Met Phe Ile Tyr	1610	1615	1620
Ala Ile Phe Gly Met Ser Asn Phe Ala Tyr Val Lys Lys Glu Ala	1625	1630	1635
Gly Ile Asp Asp Met Phe Asn Phe Glu Thr Phe Gly Asn Ser Met	1640	1645	1650
Ile Cys Leu Phe Gln Ile Thr Thr Ser Ala Gly Trp Asp Gly Leu	1655	1660	1665
Leu Ala Pro Ile Leu Asn Ser Ala Pro Pro Asp Cys Asp Pro Asp	1670	1675	1680
Thr Ile His Pro Gly Ser Ser Val Lys Gly Asp Arg Gly Asp Pro	1685	1690	1695
Ser Val Gly Ile Phe Phe Phe Val Ser Tyr Ile Ile Ile Ser Phe	1700	1705	1710
Leu Val Val Val Asn Met Tyr Ile Ala Val Ile Leu Glu Asn Phe	1715	1720	1725
Ser Val Ala Thr Glu Glu Ser Ala Glu Pro Leu Ser Glu Asp Asp	1730	1735	1740
Phe Glu Met Phe Tyr Glu Val Trp Glu Lys Phe Asp Pro Asp Ala	1745	1750	1755
Thr Gln Phe Ile Glu Phe Ser Lys Leu Ser Asp Phe Ala Ala Ala	1760	1765	1770
Leu Asp Pro Pro Leu Leu Ile Ala Lys Pro Asn Lys Val Gln Leu	1775	1780	1785
Ile Ala Met Asp Leu Pro Met Val Ser Gly Asp Arg Ile His Cys	1790	1795	1800
Leu Asp Ile Leu Phe Ala Phe Thr Lys Arg Val Leu Cys Glu Ser	1805	1810	1815
Gly Glu Met Asp Ala Leu Arg Ile Gln Met Glu Asp Arg Phe Met	1820	1825	1830
Ala Ser Asn Pro Ser Lys Val Ser Tyr Glu Pro Ile Thr Thr Thr			

1835	1840	1845
Leu Lys Arg Lys Gln Glu Glu Val Ser Ala Ala Ile Ile Gln Arg		
1850	1855	1860
Asn Phe Arg Cys Tyr Leu Leu Lys Gln Arg Leu Lys Asn Ile Ser		
1865	1870	1875
Ser Asn Tyr Asn Lys Glu Ala Ile Lys Gly Arg Ile Asp Leu Pro		
1880	1885	1890
Ile Lys Gln Asp Met Ile Ile Asp Lys Leu Asn Gly Asn Ser Thr		
1895	1900	1905
Pro Glu Lys Thr Asp Gly Ser Ser Ser Thr Thr Ser Pro Pro Ser		
1910	1915	1920
Tyr Asp Ser Val Thr Lys Pro Asp Lys Glu Lys Phe Glu Lys Asp		
1925	1930	1935
Lys Pro Glu Lys Glu Ser Lys Gly Lys Glu Val Arg Glu Asn Glu		
1940	1945	1950

Lys

<210> 157
 <211> 380
 <212> PRT
 <213> Homo sapien

<400> 157

Met Gly Ala Ala Ala Gln Ala Pro Leu Gly Leu Pro Ala Ala		
1 5 10 15		
Ser Ala Arg Leu Leu Leu Leu Ala Thr Ser Val Leu Leu Leu Phe		
20 25 30		
Ala Phe Ser Leu Pro Gly Ser Arg Ala Ser Asn Gln Pro Pro Gly		
35 40 45		
Gly Gly Gly Gly Thr Gly Gly Asp Cys Pro Gly Gly Lys Gly Lys		
50 55 60		
Ser Ile Asn Cys Ser Glu Leu Asn Val Arg Glu Ser Asp Val Arg		
65 70 75		
Val Cys Asp Glu Ser Ser Cys Lys Tyr Gly Gly Val Cys Lys Glu		
80 85 90		
Asp Gly Asp Gly Leu Lys Cys Ala Cys Gln Phe Gln Cys His Thr		
95 100 105		
Asn Tyr Ile Pro Val Cys Gly Ser Asn Gly Asp Thr Tyr Gln Asn		
110 115 120		
Glu Cys Phe Leu Arg Arg Ala Ala Cys Lys His Gln Lys Glu Ile		
125 130 135		

Thr	Val	Ile	Ala	Arg	Gly	Pro	Cys	Tyr	Ser	Asp	Asn	Gly	Ser	Gly		140	145	150
Ser	Gly	Glu	Gly	Glu	Glu	Glu	Gly	Ser	Gly	Ala	Glu	Val	His	Arg		155	160	165
Lys	His	Ser	Lys	Cys	Gly	Pro	Cys	Lys	Tyr	Lys	Ala	Glu	Cys	Asp		170	175	180
Glu	Asp	Ala	Glu	Asn	Val	Gly	Cys	Val	Cys	Asn	Ile	Asp	Cys	Ser		185	190	195
Gly	Tyr	Ser	Phe	Asn	Pro	Val	Cys	Ala	Ser	Asp	Gly	Ser	Ser	Tyr		200	205	210
Asn	Asn	Pro	Cys	Phe	Val	Arg	Glu	Ala	Ser	Cys	Ile	Lys	Gln	Glu		215	220	225
Gln	Ile	Asp	Ile	Arg	His	Leu	Gly	His	Cys	Thr	Asp	Thr	Asp	Asp		230	235	240
Thr	Ser	Leu	Leu	Gly	Lys	Lys	Asp	Asp	Gly	Leu	Gln	Tyr	Arg	Pro		245	250	255
Asp	Val	Lys	Asp	Ala	Ser	Asp	Gln	Arg	Glu	Asp	Val	Tyr	Ile	Gly		260	265	270
Asn	His	Met	Pro	Cys	Pro	Glu	Asn	Leu	Asn	Gly	Tyr	Cys	Ile	His		275	280	285
Gly	Lys	Cys	Glu	Phe	Ile	Tyr	Leu	Leu	Arg	Arg	Ala	Ser	Cys	Arg		290	295	300
Cys	Glu	Ser	Gly	Tyr	Thr	Gly	Gln	His	Cys	Glu	Lys	Thr	Asp	Phe		305	310	315
Ser	Ile	Leu	Tyr	Val	Val	Pro	Ser	Arg	Gln	Lys	Leu	Thr	His	Val		320	325	330
Leu	Ile	Ala	Ala	Ile	Ile	Gly	Ala	Val	Gln	Ile	Ala	Ile	Ile	Val		335	340	345
Ala	Ile	Val	Met	Cys	Ile	Thr	Arg	Lys	Cys	Pro	Lys	Asn	Asn	Arg		350	355	360
Gly	Arg	Arg	Gln	Lys	Gln	Asn	Leu	Gly	His	Phe	Thr	Ser	Asp	Thr		365	370	375
Ser	Ser	Arg	Met	Val												380		

<210> 158
 <211> 341
 <212> PRT
 <213> Homo sapien

<400> 158
 Met Leu Pro Glu Gln Leu Tyr Phe Leu Gln Ser Pro Pro Glu Glu

1	5	10	15
Glu Pro Glu Tyr His	Pro Asp Ala Ser	Ala Gln Glu Leu Asn	Val
20		25	30
Arg Glu Ser Asp Val	Arg Val Cys Asp	Glu Ser Ser Cys Lys	Tyr
35		40	45
Gly Gly Val Cys Lys	Glu Asp Gly Asp	Gly Leu Lys Cys Ala	Cys
50		55	60
Gln Phe Gln Cys His	Thr Asn Tyr Ile	Pro Val Cys Gly Ser	Asn
65		70	75
Gly Asp Thr Tyr Gln	Asn Glu Cys Phe	Leu Arg Arg Ala Ala	Cys
80		85	90
Lys His Gln Lys Glu	Ile Thr Val Ile	Ala Arg Gly Pro Cys	Tyr
95		100	105
Ser Asp Asn Gly Ser	Gly Ser Gly Glu	Gly Glu Glu Glu Gly	Ser
110		115	120
Gly Ala Glu Val His	Arg Lys His Ser	Lys Cys Gly Pro Cys	Lys
125		130	135
Tyr Lys Ala Glu Cys	Asp Glu Asp Ala	Glu Asn Val Gly Cys	Val
140		145	150
Cys Asn Ile Asp Cys	Ser Gly Tyr Ser	Phe Asn Pro Val Cys	Ala
155		160	165
Ser Asp Gly Ser Ser	Tyr Asn Asn Pro	Cys Phe Val Arg Glu	Ala
170		175	180
Ser Cys Ile Lys Gln	Glu Gln Ile Asp	Ile Arg His Leu Gly	His
185		190	195
Cys Thr Asp Thr Asp	Asp Thr Ser Leu	Leu Gly Lys Lys Asp	Asp
200		205	210
Gly Leu Gln Tyr Arg	Pro Asp Val Lys	Asp Ala Ser Asp Gln	Arg
215		220	225
Glu Asp Val Tyr Ile	Gly Asn His Met	Pro Cys Pro Glu Asn	Leu
230		235	240
Asn Gly Tyr Cys Ile	His Gly Lys Cys	Glu Phe Ile Tyr Ser	Thr
245		250	255
Gln Lys Ala Ser Cys	Arg Cys Glu Ser	Gly Tyr Thr Gly Gln	His
260		265	270
Cys Glu Lys Thr Asp	Phe Ser Ile Leu	Tyr Val Val Pro Ser	Arg
275		280	285
Gln Lys Leu Thr His	Val Leu Ile Ala	Ala Ile Ile Gly Ala	Val
290		295	300

Gln Ile Ala Ile Ile Val Ala Ile Val Met Cys Ile Thr Arg Lys
305 310 315

Cys Pro Lys Asn Asn Arg Gly Arg Arg Gln Lys Gln Asn Leu Gly
320 325 330

His Phe Thr Ser Asp Thr Ser Ser Arg Met Val
335 340